First Copy TECHNOLOGY DEPT. NOV 20 1931

A National Newspaper for Every Branch of the Industry

Automotive Daily News

CARS · SHOP EQUIPMENT · TRUCKS · AVIATION · PARTS · ACCESSORIES · TIRES

Vol. 12. No. 1599. Entered as second-class matter, Aug. 27, 1925, Post Office, N. Y., N. Y., Under Act of March 3, 1879. NEW YORK, FRIDAY, NOVEMBER 13, 1931 5 Cents. $12 Per Year

Chevrolet Makes Three Major Transfers in Central, Regional and Zone Offices

C. P. Fisken Shifted to Head Commercial Car Department; A. F. Young in Charge of Flint Region And H. B. Hatch Goes to Norwood

DETROIT, Nov. 12.—Extensive personnel changes affecting Chevrolet's central office, region and zone offices, made as a result of three major transfers in the present organization, are announced by H. J. Klingler, vice-president and general sales manager.

C. P. Fisken, for the past three years manager of Chevrolet's Indianapolis zone, where the company's truck body plant is located, heads the commercial car department of the company, with Sidney Corbett as Eastern sales manager of this department and H. E. Sneathen as Western sales manager.

C. P. Fisken

Other major changes bring A. F. Young, formerly manager of the Norwood (Cincinnati) region, to Flint as regional manager; H. B. Hatch, formerly Detroit zone manager, goes to Norwood as regional manager, and is succeeded at Detroit by G. I. Smith, formerly zone manager at Minneapolis.

A. F. Young

H. B. Hatch

Mr. Fisken brings to the commercial car and truck field a well-rounded sales experience and knowledge of Chevrolet policies gained in various capacities with the organi-

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SEE IMPROVEMENT IN CAR PRODUCTION IN NEXT 2 MONTHS

Detroit, Nov. 12,—With October production estimated by the National Automobile Chamber of Commerce at somewhat over 86,000 vehicle units, both passenger and commercial, observers here look for a considerably increased output in November and December. Announcements of new models are beginning, Buick making the initial presentment. This, of course, is the period of the year set by agreement among manufacturers for unveiling their new offerings.

Leaders of the industry here are inclined to believe that during the next two months the automotive industry will have to produce 200,000 or more vehicle units. With 50,000 dealers in the field, this number would seem to be conservative. During November and December of 1930 the industry turned out somewhat over 300,000 vehicle units.

Close observers of the industry here, and this includes members of the banking fraternity, assert that conditions today are better than they were at the same period of last year, which may step production up beyond the modest estimates that have so far been made.

Confirmation of this view is found in the increased buying of steel by automotive organizations, a fact that

(Continued on Page 2)

Commercial Car Sales in Ten States Show Decrease in October

Several Individual Makes Show Increases So Far, In Spite of Decline in Total Sales

NEW YORK, Nov. 12.—R. L. Polk have today announced sales returns for commercial vehicle units in ten states for the month of October. This compilation shows total commercial unit sales of 3,155, which compares with 5,014 for the same territory in October, 1930. The complete table by makes and states for the ten states now in hand will be found on Page 3 of this issue.

In spite of the decrease in total sales, a number of truck manufacturers have registered increases on October sales as far as they have gone.

Diamond-T shows 52 units, against 37 last year. Reo has sold 63 units, as compared with 36 in the same period of 1930. Sterling has 11 sales to its credit, against 2 last year. Stewart shows 4 sales, against 2 last October. Studebaker has registered 46 units, compared with 12 last year. Willys shows 40 units, as against 19 in October, 1930.

A. J. ROGERS HEADS ADVERTISING AND SALES FOR MARMON

Indianapolis, Ind., Nov. 12.—The appointment of A. J. Rogers as vice-president in charge of sales of the Marmon Motor Car Company is announced by G. M. Williams, president. Rogers also has been elected a director of the company, and takes over his new duties at once.

He succeeds George C. Tenney, who has resigned the post of general sales director after an association of more than two years with Marmon.

Rogers' advancement is the first step in the Marmon program for the future, which is one of the most

(Continued on Page 7)

MACHINERY EXPORTS UP IN SEPTEMBER

Washington, Nov. 12.—During September there was a renewed upward tendency in the exports of industrial machinery, the total being $13,282,000, as compared with $9,926,000 for August and $15,215,000 for September, 1930, Commerce Department reports.

BEATY HEADS A. P. I.; IMPORT TARIFF ON CRUDE OILS URGED

Chicago, Nov. 12.—Amos L. Beaty of New York and a director of the Phillips Petroleum Company was elected president of the American Petroleum Institute, succeeding E. B. Reeser. Beaty had for years served as treasurer of the institute.

Resolutions were passed advocating the formation of state committees to combat gasoline tax evasion and indorsing a tariff on the importation of crude oil and its derivatives.

UNITED MOTORS TO HANDLE DODGE IN LOUISVILLE ZONE

Detroit, Nov. 12.—Appointment of the United Motors Corporation, 958-966 South 3d St., Louisville, Ky., as Dodge and Plymouth dealer for Louisville and surrounding territory is announced by A. Vanderzee, general sales manager of the Dodge Brothers Corporation. The firm sells and services Dodge passenger cars, trucks and Plymouth cars.

William Ruedeman is secretary-treasurer and Henry Ruedeman is vice-president. L. Chase Caye, who has been associated with the company for eleven years, will be general sales manager.

United Motors will operate a separate truck department with the truck salesroom under the supervision of Jack Ward.

FURTHER AFFIDAVITS REFUTE MASURY'S CHARGES AGAINST ASSEMBLED TRUCK UNITS

NEW YORK, Nov. 12.—Acting for his client, Brockway Motor Truck Corporation, which is suing the city of New York in an effort to secure modification of truck specifications to admit "assemblers," Joseph L. Greenberg, attorney, of 165 Broadway, yesterday filed in Supreme Court affidavits of William R. Angell, president of Continental Motors; W. Ward Mohun, assistant sales manager of Willys-Overland, Inc.; Eugene B. Clark, president of Clark Equipment Company, and L. P. Kalb, former chairman of the Truck Standards Committee of the Society of Automotive Engineers.

The affidavits dwelt on the strength and stability of "assemblers" of trucks and of the companies furnishing their component parts.

Brockway's suit is being followed closely by the truck industry, on account of the effect its outcome may have on specifications for millions of dollars worth of trucks purchased annually by New York city and other municipalities which might follow New York's lead. The immediate issue is award of contract for nine motor driven brooms. Brockway is seeking to bring about removal from the Sanitary Commission's specifications for these brooms of a clause which operated to exclude "assemblers."

Mr. Clark held that "a truck builder who attempts to build all his own units must necessarily ask a higher price for his truck, not because it is better, but because it is more costly for him to build his units than to buy them. It is these facts that account for the rapid and continuous trend during recent years

(Continued on Page 2)

Full Description of New '32 Buick in Tomorrow's A.D.N.

DETROIT, Nov. 12.—**In tomorrow's Automotive Daily News will appear a complete technical description of the new Buick models, featuring the much-discussed wizard control. This feature includes a new automatic clutch, new free wheeling and a new silent syncro-meshtransmission.**

The Buick adaptation of free wheeling is designed to give the driver positive control at all times, with instantaneous change from free wheeling to conventional drive.

New bodies by Fisher have been prepared for the new chassis lines. A new valve-in-head straight eight engine is under the hood. Adjustable shock absorbers are another new feature. There is an engine oil temperature regulator, which is interesting, and a redesigned fuel system.

Complete details of these interesting new Buicks will be found in tomorrow's Automotive Daily News.

DODGE AND PLYMOUTH NAME CAPITOL MOTORS IN INDIANAPOLIS

Detroit, Nov. 12.—Appointment of the Capitol Motors Company, Capitol Avenue at Michigan, as Dodge and Plymouth dealer for Indianapolis and surrounding territory, is announced today by Dodge Brothers Corporation.

The Capitol Motor Company is a subsidiary of the Gibson Company, auto equipment and parts distributor.

J. M. Bloch is president and general manager of the company.

The new Dodge Brothers dealer will have its sales and service headquarters in the five story building of the company at Michigan Street and Capitol Avenue.

DODGE ANNOUNCES TRANSFERS IN ITS FIELD PERSONNEL

Detroit, Nov. 12.—Several changes in the field sales organization of Dodge Brothers Corporation were announced today by General Sales Manager A. vanDerZee.

J. R. Lake has been appointed sales representative with headquarters in Detroit. He succeeds H. M. Rowell who has been transferred to the Chicago region.

A. A. French, formerly sales representative in the Green Bay Zone has been transferred to the Minneapolis zone to succeed L. W. Mann, resigned.

In the South Boston zone, C. A. Lemmon who resigned to become associated with the Dodge dealership in Syracuse, has been succeeded by F. H. Marr, formerly of the North Boston zone. W. F. Maloney, formerly sales representative in the Binghamton zone, takes over Marr's duties in the North Boston zone.

STEEL OPERATIONS IN YOUNGSTOWN, O., SHOW MORE GAINS

Youngstown, Nov. 12.—A further small increase in operations, the fourth in as many weeks, is expected to develop soon in the Youngstown steel manufacturing district. Trade authorities in the district predict that schedules during the coming week will at least hold to the current 37 per cent. rate.

Automobile steel buying in the last few weeks has contributed to the recent upturn in steel ingot production, which lifted the district's average to 37 per cent., from slightly more than 30 per cent. last week and 25-26 per cent. at the low point for the year.

Sheet production as well as strip production from Youngstown rolling mills was appreciably higher at the midddle of the week. Several plants idle last week were rolling and the volume of bookings apparently indicated that production of such flat steels will be fully as high next week as this week. Among the larger buyers is Chevrolet.

More Truck Assemblers Refute Masury Charges

(Continued from Page 1)

toward what is improperly designated as an "assembled" truck.

"The percentage of the total trucks manufactured that have been produced by the two builders who have advertised their adherence to the principle of 'building under one roof' has been steadily declining. For instance, in 1920, these two manufacturers produced 12.9 per cent. of the total trucks produced (exclusive of Ford); in the first nine months of 1931 they prodced only 2.8 per cent. The figures for each year are as follows:

	Per cent.		Per cent.
1920	12.9	1926	7.0
1921	17.4	1927	4.8
1922	12.9	1928	3.7
1923	12.6	1929	3.1
1924	11.8	1930	4.2
1925	10.8	1931 (9 mo.)	2.8

Mr. Angell of Continental confined himself to a fact by fact statement dealing with the history of Continental, the extensiveness of its plant and the widespread nature of its services.

He attached to his affidavit the "Continental Motors Corporation and subsidiaries consolidated balance sheet, April 30, 1931," which showed capital of $23,459,645, and surplus of $1,408,257.42. He pointed out that the company owns and operates "two large plants at Detroit and Muskegon, Mich., occupying a ground area upwards of 74 acres," and that, "in addition to the stock of parts carried and sold by the corporation direct, parts for motors manufactured by the corporation may be purchased for quick delivery at reasonable prices at 38 parts stations located in various parts of the United States.

"To the best of the affian'ts knowledge and belief" the affidavit continued, "no user of engines manufactured by Continental Motors Corporation has ever been forced to the necessity of purchasing or using so-called 'pirate parts' because of the failure, refusal, or inability of the corporation to promptly furnish genuine repair or replacement parts at reasonable prices."

"Many of the so-called 'under one roof' manufacturers," said Mr. Kalb in his affidavit, "formerly holding leading positions in the industry are now either defunct or have ceased to manufacture motor trucks. In this category can be included Locomobile, Kelly - Springfield, Alco, Packard, Peerless, A. O. Smith, etc."

Mr. Mokun expressed his conviction that the practice of the "larger producers" in buying component parts tended to make for better material and quality at lower prices.

Affidavits previously submitted include those of Timken-Detroit Axle Company and Federal Motor Truck Company, on the side of Brockway, and of White and Mack trucks, on the side of the city. Supreme Court Justice Cotillo has heard arguments and reserved decision.

SEE IMPROVEMENT IN CAR PRODUCTION IN NEXT 2 MONTHS

(Continued From Page 1)

has been noted in Pittsburgh and the valley districts. At the present time the steel makers are watching the automotive industry more eagerly than any other manufacturing business. They expect automotive buying to be a leading factor in an improvement that should last over into the first of the year.

NORTH CAROLINA TRUCK GROUP NAMES WILKINSON

Charlotte, N. C., Nov. 12.—John L. Wilkinson of Charlotte, head of the Carolina Transfer and Storage Company, was elected president of the North Carolina Truck Owners' Association, to succeed H. D. Horton, also of Charlotte. Charles E. Fredrickson, president of the Fredrickson Motor Express Corporation, was chosen treasurer.

After the election of officers, the members went into executive session and decided to establish a state office. They elected Sprague Silver executive secretary.

FAITH MFG. CO. OPERATING PLANT AT 75% CAPACITY

Chicago, Ill., Nov. 12.—The Faith Manufacturing Company of this city, producers of die castings, aluminum and zinc base alloys, now has its plant operating at 75 per cent. of capacity. One of the busiest departments is that turning out automobile ornaments and caps. The company is also running full time in its division that produces toy automobiles.

DODGE COAST MANAGER GETS ADDED DUTIES

Stockton, Cal., Nov. 12.—P. W. Gaebelein, for the last two years manager of Dodge Brothers' truck plant here, in addition to his present responsibilities, has been appointed manager of the Pacific regional office of the recently organized Chrysler Motors Fargo Division, a new unit of the Chrysler Corporation.

GATKE CORP. APPOINTS DAVIS SALES DIRECTOR

Chicago, Nov. 12.—Thomas L. Gatke, president of the Gatke Corporation, manufacturer of molded brake blocks and friction materials, announces the apointment of Charles H. Davis of Detroit as director of automotive sales and merchandising for the corporation.

POSTPONE FIRST PUBLIC FLIGHT OF NEW STAINLESS STEEL AMPHIBIAN PLANE

Port Washington, L. I., Nov. 12.—The first public flight of the new stainless steel amphibian which was scheduled for next Sunday at the New York Seaplane Base here, has been postponed until the following Sunday, according to an announcement made yesterday by officials of the American Aeronautical Corporation. The plane is the first aircraft ever built of stainless steel. Heretofore, bamboo, spruce, light metal alloys and high tensile steels have been employed in aircraft construction, but until a new method of welding stainless steel was developed this metal was not practical. Under the system of shot welding employed in the construction of this craft the stainless steel remains non-corrosive and non-magnetic and is said to be the most efficient material yet developed for aircraft use.

PROBE GASOLINE TAX EVASION IN MINNESOTA

St. Paul, Minn., Nov. 12. — Investigation of gasoline tax evasion in Minnesota has been launched by large petroleum operators and independent dealers as a part of a national campaign to correct this evil.

The investigating group organized as the Minnesota Gasoline Tax Evasion Committee will ask the aid of state officials in searching out "night riders" who run the line at night and fail to report shipment of gasoline entering Minnesota.

CHRIS-CRAFT SELLS 223 BOATS AT PRE-SHOWING

Algonac, Mich., Nov. 12.—Preshowings at New York and Algonac of Chris-Craft runabouts for 1932 have resulted in an unprecedented volume of business, according to Jay W. Smith, president of the Chris-Craft Corporation. More than 100 dealers attending placed orders for 223 runabouts for early delivery.

WILLIAM J. LAMBE

Detroit, Nov. 12. — William J. Lambe, for thirty years a representative of the Fisk Rubber Company, died in the Harper Hospital here yesterday as a result of hemorrhage of the stomach. He was 50 years of age and as a factory man was widely known in the industry. In addition to his local club affiliations, he was a member of the Question Club, that famous organization formed years ago by motor car executives.

CENTRAL N. Y. AREA SEES OUTPUT GAIN IN METAL PLANTS

Syracuse, N. Y., Nov. 12.—General industrial activity throughout the central New York area has recorded a remarkable improvement during the past seven or eight weeks. Many of the larger manufacturers had added considerably to their pay rolls, stepped up production schedules to a near-normal basis and materially agumented working sheets.

This is especially true with metal concerns engaged in the manufacture of material for the building industry and equipment for the automotive trade. Production of winter necesisties for the motor car is in progress on volume basis and the demand for material from this type of manufacturers has shown a wide improvement. Other lines of industry in this district have also improved schedules of production and employment, indicating more optimism on the part of the general public which is expected to release surplus funds for new automobiles and trucks.

The Owen Dyneto Corporation, manufacturer of automotive and marine electrical equipment, reports the volume of incoming business as showing upward trend from week to week, with indications of satisfactory plant operations well into the first quarter of 1932.

Manufacture of shackle bolts and nuts has been materially increased at the plant of the Brown Manufacturing Company, one of the largest independent producers of these items. With the automobile manufacturers planning to start quantity output of new models late this year, officials of this concern look forward to satisfying volume of business during the coming months.

At the plant of the Crouse-Hinds Company, which manufactures traffice control systems and airport lighting equipment, operations are reported as having been materially increased this fall. Inquiries at hand and the volume of incoming business in all divisions will warrant continuance of high operating schedules well into 1932.

A satisfactory volume of new business is recorded by the Caldwell & Ward Brass Company. The Betts Welding and Supply Company, recently organized, has established headquarters at 424 South West St., and reports a good volume of incoming business from automotive trade circles.

The International Harvester Company has work in progress on construction of a one-story brick and steel service plant on property owned by the Globe Forge and Foundries Company. The new structure will be 80 by 300 feet in size and equipped throughout with the latest type of machinery and equipment for truck maintenance.

NEW YORK RUSCO OFFICE IN LARGER QUARTERS

New York, Oct. 12.—Due to increased business and the need for greater operating space, the New York office of the replacements department of the Russell Manufacturing Company, of Middletown, Conn., manufacturer of Rusco brake linings and other automotive products, was moved this week from 51 Columbus Ave. to new and more commodious quarters at 27-43 West 65th St. At the same time the credit office of the replacements department was moved from 17-23 West 60th St., to the new location.

GOV. ELY ORDERS ACTION ON MASS. INSURANCE RATES

Boston, Mass., Nov. 12.—Gov. Joseph B. Ely has sent a special message to the Legislature in which he stated that if no action is taken at the present special session, which has been under way since September 28, he will direct the state insurance commissioner, Merton L. Brown, to promulgate the 1932 automobile insurance rates, tentatively announced early in September.

WESTERN AUTO SUPPLY

New York, Nov. 12.—Western Auto Supply Company has declared quarterly dividends of 50 cents each on the Class A and B common stock, placing same on a $2 annual basis, against $3 previously. The dividends are payable December 1 to stock of record November 20.

SPARKS from DETROIT

Birthday Candles

* * *

Studebaker Old Guard

* * *

Here's a Chance

* * *

Ups and Downs

Chris Sinsabaugh—Detroit Editor

SEEMS to me birthdays and anniversaries have been my theme song in the column of late—Stewart-Warner and Chevrolet, for instance—so maybe I can shove another bit of cake into my mouth and dash off a few lines about another affair out of the ordinary. The arrival in the big city of George H. Bird with candle grease on his coat sleeves (figuratively speaking, of course) provides the occasion.

This Bird comes from Chicago and he broke away Monday night from the party that was celebrating the twenty-eighth anniversary of the Bird-Sykes Company, Graham-Paige distributor, to convoy Tom Hay and Charley Gamble on the Detroit trip.

* * *

I CAN write fluently about this concern, for I came into the industry myself at about the same time—1903—when the Bird-Sykes Company was just starting, Barney Sykes being affiliated with the concern at the time, and buying out the Bennett interests later. Then it became the Bird-Sykes Company and it's been that ever since. I remember, though, how the wisecrackers along the Row tried to queer the deal by suggesting that George Bird go into partnership with the late Dan Canary, then prominent on Michigan Avenue, and call it the Canary-Bird Company.

Getting down to serious facts, however, Bird-Sykes has represented Graham-Paige since 1912 and for ten years has been at 2215-25 South Michigan Ave.

* * *

POSSIBLY, too, it is the column's duty to record the presentation of gold medals to A. R. Erskine, president of Studebaker, and Paul G. Hoffman, vice-president in charge of sales, which makes them members of the Honorable Old Guard of Studebaker. You have to work twenty years for the corporation before you can break into this select company. It is said that neither Erskins nor Hoffman has worried much about qualifying, for they're serving life sentences with Studebaker anyway.

Frederick S. Fish, chairman of the board, claims the honor of discovering Albert Russel Erskine. When he was president he brought Mr. Erskine in as treasurer and when Mr. Fish became chairman of the board following the death of J. M. Studebaker in 1915, Mr. Erskine slipped into the presidency. Paul Hoffman started two decades ago as a Studebaker salesman.

* * *

H. G. CHRISTENSON, Detroit manager for the National Battery Company of St. Paul, Minn., dangles in front of the column conductor an opportunity to win $1,000. Oh, for brains!

All you have to do to get it is to be the one to write the best ten-word slogan in the sloganeering campaign inaugurated by the company, details of which are being radio broadcast. There are nine other prizes, the total purse being $1,500. Of course, the subject is the National battery itself and you have to express succinctly the merits of the battery. Lists close December 10.

* * *

EXIGENCIES of the moment caused one of the local factories to lay off an elevator conductor who had been twenty-eight years in the service of the company. Did the old man cry? Did he talk about tough luck? No. He became philosophic. "I didn't think the job would last when I took it," he said, as he shuffled out the door.

BALDWIN STOCKHOLDERS TO CONSIDER NEW PLANS

Pontiac, Nov. 12.—Since adjournment of a meeting of stockholders of the Baldwin Rubber Company, October 8, new arrangements have been made with Canadian interests concerned in the organization of the Baldwin Rubber Company of Canada, Ltd. Common stock to be held by the local company has been increased from 16,575 shares to 21,200 shares.

A meeting of stockholders is scheduled for November 20 to consider the new plans. Arrangements have been made that the Canadian interests must have $75,000 of the debentures paid for before any move will be made towards installation of machinery in the plant, which is to be located at Orillia, Ont. The Baldwin Rubber company manufactures rubber floor mats and rubber accessories for automobiles.

N. J. ZINC REPORTS PROFITS FOR NINE MONTHS

New York, Nov. 12.—New Jersey Zinc Company reports net profit of $2,504,838 after taxes and charges in the nine months to September 30. This was equal to $1.27 a share on 1,963,264 shares, compared with $4,140,036, or $2.11 a share, in the period last year.

Some European Sources Of Automotive Color Inspiration

By HOWARD KETCHAM

Director Duco Color Advisory Service, E. I. du Pont de Nemours & Co. Presented at the November meeting of the Detroit section of Society of Automotive Engineers Monday night

(Continued from yesterday's issue)

"In the range of colors presented at this year's salon, a peculiarity is the comparative dearth of medium shades. In view of the decrease in black and the strong appearance of ivory and some other light tones, there is evidence of a trend toward livelier, gayer colors. With regard to decoration, the position is far less clear, and definite trends are lacking for the present. In fact, the salon illustrates various ideas, none of which have a sufficient lead to give the impression of a trend.

"The now almost classical scheme of having a molding forming belt, extending to the radiator, finished in a different color, is, of course, still represented, but is very much on the decrease. Where the belt molding scheme is retained, contrasting colors are far less prevalent, the moldings being finished in the same color or in a slightly different shade of the same color. The broad stripes in contrasting colors, just under the windows, seem also on the wane. At the same time the prevalence of belting on the side of the hood is waning. Many cars do not show any kind of decoration whatever. Generally speaking, color decoration was considerably less overdone this year.

"Metal decoration seemed to keep in favor. Wide belting is sometimes used and is often divided by a stripe or a filet of bright color which considerably brightens its appearance. This system was introduced some time ago by Letourneur & Marchand, but has now been adopted by many other firms.

"There seems to be an increase in the use of metal for decoration in the shape of narrow strips or filets, which have a rather pleasing effect.

"Rustless steel has so far not been adopted by French coach builders, although it has now been, for some time, used by leading London body makers. Cars shown by Barker, Hopper, etc., at the recent salon, have not only the decoration, but lamps and other fittings made of rustless steel. For industrial reasons this metal can, for the present, only be used for expensive cars, but it certainly possesses great advantages. For decoration, its appearance is less cold than that of chromium plate and it seems to blend with colors in a more effective manner.

"With regard to fenders, the proportion of colored fenders is greater among custom-built cars than among standard cars. Coach builders' exhibits show a proportion of about three black to two colored fenders. A tendency toward wider fenders, embodying a more sweeping curve, doing away with the straight running board, which is replaced by oval stepping plates, was observed.

"With regard to wheels, the very great majority of French cars are fitted with disc wheels. The plain chromium or nickel plated discs, which were very popular at one time, have considerably decreased, while the scheme consisting in decorating these discs with circles lacquered in various colors has undergone some modification. The

(Continued on Page 4)

Stresses One Sale a Year

AUTUMN Clearance USED CARS

THIRD ANNUAL SALE—SHEA CHEVROLET CO.

This sale is promoted only once each year, to increase our ever-growing family of Satisfied Customers.

We realize to do this quickly in a competitive market, we must offer inducements out of the ordinary—therefore, in addition to extremely low prices, we offer extra values which you will find presented throughout the listing below.

Anything mentioned in this particular advertisement applies only to the cars offered in this list and not our general stock.

No. 234—1930 Chevrolet Sport Roadster $315
No. 220—1930 Chevrolet Sport Sedan 445
No. 214A—1930 Chevrolet Sport Coupe 425
No. 213—1930 Chevrolet Club Sedan $420
No. 226—1930 Chevrolet Coach $385
No. 189A—1929 Chevrolet Sedan $315

ALL CARS RECONDITIONED

30-DAY GUARANTEE WITH EACH CAR

No. 227—1930 Ford Sport Roadster $285
No. 000—1929 Plymouth Sport Coupe $215

1932 FREE LICENSE PLATES

Open Until 9 P. M. Evenings Open Sundays

SHEA CHEVROLET CO.

Teaneck Road (Opposite Town Hall) Teaneck, N. J.

Telephone Teaneck 7-7600

CALL FOR DEMONSTRATION

THE SHEA CHEVROLET COMPANY of Teaneck, N. J., conducts only one sale a year, and that in the fall. A special listing of cars, by number, is used and the prices quoted refer only to the cars listed, and not to the general stock. Free 1932 plates go with each car

SUES USED CAR DEALER IN ACCIDENT, CHARGING DEFECTIVE CAR SALE

Minneapolis, Minn., Nov. 12. — A new wrinkle in personal injury automobile suits has come to light in District Court here when the complainant named as part defendant a used car dealer who is alleged to have sold a defective automobile to another defendant, driver of the automobile.

Esther Derby filed an action for $5,000 damages against Victor Toberman, Jacob Resler, the Midland National Bank and Trust Company, administrators of the estate of the late Louis Resler, the dealer, and Ray Jordan, driver of the automobile.

Toberman and Jacob Resler were responsible for allowing the defective car to be sold to Jordan, the complainant alleges.

Miss Derby claims the defendants knew the car was defective at the time of the sale.

GOODYEAR TIRE REPAIR SCHOOL OPENS NEXT MONTH

Akron, O., Nov. 12.—Completing its fifteenth year of service to tire repairmen throughout the United States, and in many foreign countries as well, the Goodyear Tire Repair School next month will be ready for its fall and winter term, the most active season enjoyed during the year. Organized in 1916 as a single unit in Akron, O., by the Goodyear Tire and Rubber Company, the school now includes branches in Los Angeles, Chicago, Gadsden, Ala.; Kansas City, Minneapolis and Philadelphia.

FRANK GALLAND HONORED

Union City, N. J., Nov. 12.—Frank Galland, secretary of the Hudson County Automobile Dealers' Association, has been elected president of the North Hudson Kiwanis Club. Galland has charge of both Jersey City and North Hudson automobile shows each year.

CHEVROLET MAKES THREE TRANSFERS

(Continued from Page 1)

aztion. He joined the company in 1924 as a field representative of the Janesville zone. Within a year he was made sales promotion manager for the zone and then representative for the Chicago region. In 1926 he returned to Janesville as zone manager and, a year later, was transferred to the larger zone at Indianapolis.

Contingent on the Fisken transfer are the following changes: G. R. Browder, formerly Norwood zone manager, goes to Indianapolis as zone manager; R. F. Hicks, formerly Dallas zone manager, goes to Norwood; W. E. Cabeen, formerly Oklahoma City zone manager, goes to Dallas; K. M. Chase, who opened the Amarillo, Tex., zone as manager and, who prior to that time was assistant manager at Oklahoma City, returns to Oklahoma as zone manager, and H. C. Howard, formerly assistant manager at San Antonio, becomes zone manager at Amarillo.

Mr. Young, who formerly was manager of the Flint region, returns to his old post, replacing C. L. Alexander, resigned. Changes in addition to Hatch and G. I. Smith resulting from this transfer take R. W. Hill, formerly zone manager at Jacksonville, to Minneapolis as zone manager, and C. P. Barron, who was assistant manager of the Columbia, S. C., zone, succeeds Hill as Jacksonville manager.

Effective at the same time, Weston Cutter, for years manager of the Louisville zone, becomes zone manager at Cleveland, succeeding E. T. Smith, resigned. V. L. Murray, formerly city sales manager at Cincinati, succeeds Cutter at Louisville, and is succeeded at Cincinnati as city sales manager by R. S. Abbott, formerly in the commercial car department at the central office.

WISCONSIN AXLES

make the selling job easier, whether it's trucks or buses. In sturdiness, efficiency, and accessibility, they answer all questions about axles.

WISCONSIN AXLE CO.

OSHKOSH WISCONSIN

BROCKWAY - INDIANA TRUCKS

FOR EVERY USERS NEED

No major problem confronting industry today presses more urgently for solution than distribution or hauling costs. The selection of motor truck units is now receiving the kind of attention its importance warrants.

Transportation trends in all industries have been a subject of intensive study on the part of BROCKWAY-INDIANA engineers. The result is a line of motor trucks engineered to meet the specific requirements of each industry.

Visit our nearest Branch or Distributor

Brockway Motor Truck Corporation

General Office:

Cortland - - - New York

Cumulative New Commercial Car Registration Statistics, October, 1931

Returns for today: Arkansas, Florida, Minnesota and Wisconsin.

Figures in this table are from R. L. Polk & Co. of Detroit, with the exception of Illinois, which are supplied by the Robinson Advertising Service, Springfield, Ill., and New Jersey, which are furnished by the New Jersey Motor List Co., New Car Division, Trenton, N. J. Readers desiring county, city or town lists, or lists of owners in any given section, may obtain these by addressing any of these three companies. Some of this data has been published previously, but it is given here complete for the convenience of our subscribers. In this table, 9 states.

Commercial Car Registrations do not include buses.

States	Autocar	Brockway-Indiana	Chevrolet	Diamond-T	Dodge	Federal	Ford	G. M. C.	International	La France Republic	Mack	Pierce-Arrow	Reo	Sterling	Stewart	Studebaker	Whippet	White	Willys	Willys-Knight	Miscellaneous	Totals	States
Arkansas			123		9		108	2	35		3											280	Ark.
Delaware	1		24				26	2	4		1		1		1						1	61	Del.
Florida		1	218		7	1	221		12		2		7					1				470	Floida
Illinois	1		382	36	28	4	324	24	70		2		14	6		13		1	9		12	926	Illinois
Minnesota			190	9	13	4	192	10	49		2		18	2	2	16		6	15		3	531	Minn.
North Dakota			18		4		19		23				1			2			4		1	72	Nor. Dak.
So. Carolina			99		6	3	79	3	4		9		4			1					14	222	S. Car.
Utah			45		2		46		10				5			4			1			113	Utah
Wisconsin			191	7	17	3	172	14	30	1		1	13	3	1	10		1	11		5	480	Wis.
Totals	2	1	1290	52	86	15	1187	55	237	1	19	1	63	11	4	46		9	40		36	3155	Totals
Arkansas, '30			106		13	1	145	4	22				1					1	4		2	299	Ark., '30
Delaware, '30	1		14		2		52	4	2									1			2	78	Del., 1930
Florida, 1930		7	145		12	5	503	4	19		5		2					5	1			708	Fla., '30
Illinois, 1930	4	2	407	18	94	3	669	15	93	1	16		10	2	2		4	5	4	1	86	1436	Ill., 1930
Minnesota, '30		1	267	11	43	6	492	9	95		8		14			5	4	13	3	2	13	986	Minn., '30
N. Dak., 1930			38		5		67	1	45				1			1		1	2		4	165	N. D., '30
So. Car., 1930			92		7	2	215	6	6		8					3		1			5	345	S. C., '30
Utah, 1930			41		5		110	5	3		1		3								4	172	Utah, '30
Wis., 1930			270	6	41		401	23	49		2		5		1	3	4		5		10	825	Wis., '30
Totals	5	10	1380	37	222	17	2654	71	334	1	40		36	2	3	12	12	30	19	3	126	5014	Totals

Automotive Daily News

"Of, By and For the Entire Automotive Industry"

Published Every Day Except Sunday and Monday by
AUTOMOTIVE DAILY NEWS PUBLISHING CORPORATION,
350 Hudson St., New York, N. Y.
O. J. Elder, President. H. A. Tarantous, Vice-President. Alexander Johnston, Secretary.
Entered as second-class matter August 27, 1925, at the post office at New York N. Y., under the act of March 3, 1879.
350 Hudson St., New York, N. Y. Telephone CA nal 6-1000

Member A. B. C.

Mail subscriptions to CIRCULATION DEPARTMENT 350 Hudson St.
Subscription Rates—One year, $12.00; two years, $20.00, for United States and Canada, also Mexico, Cuba and Panama.
To Other Countries—One Year, $15.00; two years, $26.00. Single copies, 5 cents.

FRIDAY, NOVEMBER 13, 1931

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The Delayed Market for Service

WE have heard a great deal in recent months of the "delayed market" for motor cars. The statistics of production prove conclusively that not enough cars have been sold during 1930 and 1931 to fill the normal replacement need.

What we have not heard, however, is that there is also being stored up an enormous delayed market for replacement parts, accessories and service work. At this time it looks as if new car buying would show definite signs of revival in the early months of 1932. But even at that there will not be a heavy enough volume of sales to make up for the replacements that were needed but not bought in 1931 through motives of economy.

This means that there will be many thousands of motor vehicles well stricken in the vale of years, but still in active operation next year. And, of course, this means service.

The wise dealer is devoting much of his time and energy today to getting service work into his plant. He will be doubly wise if he begins now to prepare to go out after even more service business in 1932. If his service department is efficient and energetic now, he will begin planning to have it even more so next year. He will see that his equipment is up to the minute, so that he can offer the best possible service at the lowest possible cost.

The dealer who neglects a visit to the shows this year is losing a possible chance of profit. In the shop equipment section at New York and Chicago there will be displayed all the latest machines and devices to increase the efficiency of the service department. An investment in equipment efficiency made at the shows will pay dividends in the delayed service market of 1932.

Misleading Statistics

THERE is some carelessness among automotive manufacturers regarding announcements of sales records and similar matters.

For instance, in some cases stories will be issued to the effect that "October sales of Blank cars or trucks were 1,627 units." Then there will be a further statement to the effect that this is a 60 or 70 per cent. increase over the same month last year, or over the preceding month, or what have you.

As a matter of fact the "sales figures" may actually be shipments to dealers and include export shipments to boot. But the reader gathers the idea that he is getting the actual domestic sales total.

Perhaps this is not the most serious matter in the world, but, nevertheless, we should exercise care in giving out sales or production figures or any other statistics covering manufacturing operations to see that they are not misleading. In the end erroneous statistics are a boomerang to the company that issues them.

THERE are just a little more than two months before the show opens in New York. These ought to be busy months throughout the automotive industry. There are some loose ends of the present year to be tied up and tucked away.

But, even as we polish off the year 1931, every eve ought to be focused on the coming shows and every jaw should be set in the firm determination to make the 1932 shows the biggest and most successful events of the kind ever held.

Trade Association News

Terminal Group Formation Urged by Truck Executives

TOM SNYDER, secretary-treasurer of the Truck Association Executives of America, urges truck owners and operators throughout the country to consolidate in truck terminal groups to promote solidarity and dependability in their operations. Mr. Snyder's letter follows:

"The most active immediate procedure among motor truck and motor transport operators throughout the entire United States is to consolidate themselves into truck terminal groups, there having been at least fifty of such groups formed in the United States during the present year.

"The formation of truck line operations into terminal groups immediately brings about fundamental practices in behalf of solidarity and dependability in motor transport operation. Uniform rate structures, satisfactory rate splits between truck line operators, uniform billing and practices of accounting, centralized systems in prepay collections and assurance in the payment of C. O. D. deliveries are among the most fundamental things which are rapidly coming about.

"Within the coming year these consolidated groups will rapidly take on the service of car breaking, which, in reality, is taking on much of the obligation of the old type of middlemen, and which will guarantee to the shipper and consignee the longest transportation haul by rail and the shortest distribution haul by truck, providing both expediency and economy in the process of transportation and distribution, thus making consolidated truck terminal groups an immense factor in the changes which will take place within the coming year.

"Because of the above facts, this association is calling a meeting of the consolidated truck terminal operators of the United States, to be held at Detroit during the convention of this association. The time provided for the truck terminal group meeting is Tuesday at 2 p. m., January 12. The place of meeting to be announced later."

Fort Dodge Group Votes To Continue in N. A. D. A.

THE Fort Dodge Automobile Dealers' Association of Fort Dodge, Ia., recently held a members' meeting, with a full attendance. Derr of the National Automobile Dealers' Association. During the meeting it was moved that the association renew its membership in the N. A. D. A. for another year, and the motion was unanimously passed. A check for dues was immediately handed over to Mr. Derr.

The association recently lost a valued member in the death of Guy V. Rankin, who has been Dodge dealer in Fort Dodge since 1914. Mr. Rankin was 66 years old and was well known in sports circles throughout Iowa. He was one of the organizers of the old Iowa Baseball League and managed teams in it for several years. He was also a member of several championship bowling teams. Mr. Rankin had been in the automobile business in Fort Dodge since 1906.

Some European Sources Of Automotive Color Inspiration

(Continued from Page 3)

majority of discs are now lacquered, while the circles on the painted discs have widened to such an extent that very little of the metal is left to show. There is also a tendency to use darker colors for these circles. The change is based upon the principle that bright or light discs make the wheel appear larger or more apparent, and have in consequence, the effect of "raising" the car from the ground, while the darker discs have a contrary effect.

"There is, perhaps, a slight increase noticeable in the number of cars fitted with wire wheels. These are mostly lacquered.

"It may be mentioned that the large cars shown at the salon by leading British coach builders like Barker, Hooper and Mulliner, were fitted with disc wheels.

"The painting of louvres, although it has not disappeared yet, by any means, has been steadily decreasing during the last two or three years. Meanwhile, attempts are being made to change the time-honored disposition of the louvres themselves. This year a number of cars have the louvres arranged in a slanting fashion to create an impression of speed. Many cars are now fitted with shutters instead of louvres.

"With regard to color distribution, there are but few cars this year showing color schemes in two contrasting colors, and a great many cars are finished in one color. When two contrasting body colors are used, the trend for having a vertical instead of a horizontal division or distribution, which was strongly noticeable at the last Paris Concours d'Elegance, is still well maintained, the division starting near the dashboard being either quite straight or slightly curved at the base.

"A Rochet-Schneider model with body and fenders in medium blue had a green top and an ivory belt. A Peugeot sedan had a pale green body, a pale gray top, the gray extending out over the hood, and pale gray fenders. There was also a large Bugatti cabriolet by De Villars, finished in beige with a lavender blue (on the order of Cheruit blue) leather top. The top of the hood was also finished in this lavender blue and the edges of the fenders were embellished with beige. The running board was finished in lavender blue and decorated with strips of metal.

"Voisin, last year's foremost exponent of entirely black cars, minus any decoration whatever, has gone in for bright colors on a big scale this year. One of Voisin's sedans was shown in bright maroon, with fenders to match. Another was exhibited in apple green, with fenders in a darker sequence green variation. The Voisin entries were absolutely plain, without moldings or decoration, except a very fine stripe around the windows—the windows had round corners. Another Voisin entry was finished in ivory, with hood and fenders in bright blue, a trifle darker than Belgian blue. A very large trunk at the back was also finished in this tone.

"Barker of London showed two novel color treatments, both on Rolls-Royce cars. One of these was a sports sedan finished in ivory, with a pale green top. The second, a continental sedan, was also finished in lavender blue."

There are some elements of usefulness for the automotive industry in the methods followed by the successful couturiers in predetermining style colors. Certainly the appearance of cars can be enhanced by avoiding, as at Sevres, the procedure of hiding or detracting from the beauty of a fundamental color by the use of excessive or poorly placed decorative features. The care, thought and skill that is represented in each color harmony in the color masterpieces of Europe lend emphasis to the fact that the successful use of color in design is far more than a matter of luck resulting from haphazard procedure.

OHIO A. E. A. WILL HOLD ITS ANNUAL MEETING NOV. 16

Cincinnati, O., Nov. 12.—The sixth annual meeting of the Ohio section of the Automotive Electric Association will be held in the Netherland Plaza Hotel here Monday afternoon, with six prominent speakers discussing various phases of ignition and carburetion problems of the modern high-compression automobile.

Earl Turner of Cleveland, secretary of the association, will give the address of welcome at 1.30. This will be followed by addresses by Max Tost, sales engineer for the United American Bosch Corporation of Springfield, Mass.; Floyd Hauss, president of Hauss & Co. of Norwood, O.; G. T. Albright, service sales manager for the United Motors Service, Inc., of Detroit; R. Mueller of the Tri-State Ignition Corporation; William Moss of Remington-Rand Corporation, and J. Donovan, manager of the Oskamp Ignition Company, all of Cincinnati.

Automotive electrical specialists from more than a hundred cities and towns in Ohio, Indiana, Kentucky and West Virgnia are expected to attend.

TRENTON A. T. A. WILL HAVE DINNER NOV. 17

Trenton, N. J., Nov. 12.—Members of the Trenton Automobile Trade Association will hold a dinner meeting November 17 at Forsgate Country Club. William W. Weinmann, president will preside and it is expected that in addition to legislative matters there will be a discussion on the annual automobile show. Members report that business is showing signs of improvement.

COMING EVENTS

NOVEMBER

5-14—**London, England.** International Commercial Motor Transport Exhibition, Olympia Hall.
28-Dec. 9—**Brussels, Belgium.** Automobile Salon.
29-Dec. 5—**New York, N. Y.** Automobile Salon, Hotel Commodore.
30-Dec. 4—**New York City.** American Society of Mechanical Engineers, annual meeting.

DECEMBER

7-12—**Atlantic City, N. J. Motor and Equipment Association and National Standard Parts Association. Joint Trade Show.**
9-11—**Atlantic City, N. J.** American Insitute of Chemical Engineers, meeting.

JANUARY

9-16—**New York City.** National Automobile Chamber of Commerce. National Automobile Show.
9-17—**Los Angeles.** Annual Automobile Show of the Los Angeles Motor Car Dealers Association.
10-13—**Chicago.** National Wheel and Rim Association, annual convention, Edgewater Beach Hotel.
11-14—**Detroit, Mich.** American Road Builders Association, twenty-ninth convention and show.
11—**New York City.** Society of Automotive Engineers, annual dinner. Pennsylvania Hotel.
16-23—**Newark, N. J.** Newark Automobile Dealers' Association's annual show.
16-23—**Buffalo, N. Y.** Annual automobile show of Buffalo Automotive Trade Association, Inc., 174th Regiment Armory
17-23—**Cincinnati.** Automobile show of Cincinnati Automobile Dealers' Association.
17-23—**Milwaukee.** Annual Automobile Show, Milwaukee Automotive Trades, Inc.
22-30—**New York.** National Motor Boat Show, Grand Central Palace.
23-30—**Baltimore.** Annual Automobile Show.
23-30—**Minneapolis.** Annual Automobile Show of Minneapolis Automobile Trade Association.
23-30—**Pittsburgh.** Annual automobile show of Pittsburgh Automobile Dealers' Association, Motor Square Garden.
25-29—**Detroit, Mich.** Society of Automotive Engineers, annual meeting, Bok Cadillac Hotel.
30-Feb. 6—**Cleveland.** Annual Automobile Show of the Cleveland Automobile Manufacturers and Dealers Association, Public Auditorium.
30-Feb. 6—**Chicago, Ill.** National Automobile Chamber of Commerce. National Automobile Show
30-Feb. 6—**Chicago, Ill.** Automobile Salon, Hotel Drake.

FEBRUARY

6-13—**St. Paul.** Annual Automobile Show. St. Paul Automobile Dealers, Inc.
13-20—**Kansas City, Mo.** Annual Automobile Show, Kansas City Motor Car Dealers' Association. American Royal Building.
13-20—**Los Angeles, Cal.** Automobile Salon, Hotel Biltmore.
22-March 5—**San Francisco, Cal.** Automobile Salon, Palace Hotel.

Major Specifications and Mechanical Details of 1931 Commercial Cars

Make and Model	Capacity—Tons or Lbs.	Chassis Price	Engine	Valve Arr'g'm't	No. of Cyls.	Bore and Stroke	Piston Disp.	Tax H. P.	Max. Brake H. P. and Peak R. P. M.	Type Camshaft Drive	Radiator Make	Clutch Make	Universals Make	Steering Gear Make	Carburetor Make	Fuel Feed Type	Make Electr'l System	Make Transmission	No. Spds. For.	Rear Axle Make	Type Final Drive	Final Gear Reduction	Type Service Brakes	Area Service Brakes	Standard Wheel Base	Chassis Wgt.	Standard Tire Sizes Front	Rear
*Am La France Chief	2½	3650	Own	L	6	3¾x5	331.0	33.7	65@2100	G	G & O	Borg	Spic	Ross	Str	Vac	DR	Own	4	Tim	Wo	31.2	B4IMV	—	156	6200	32x6	32x6D
Am. La France Big Chief	6	6725	Own	L	6	4½x6	411.0	40.8	85@1800	—	—	Own	—	Ross	Zen	Vac	DR	Own	4	Own	2 R	32.8	W4IA	—	226	10600	40x8S	40x8SD
Austin	400	475	Own	L	4	2.2x3	45.6	7.8	13@3000	G	Hex	Rock	Spic	Own	Tll	Gra	Aut	W-G	3	Sa)	Sp	5.25	O4M	76.5	75	1210	3.75x18	3.75x18
Autocar A	1½-2	3200	Own	L	6	4 x4¾	358.0	38.4	82@2400	G	Per	Long	Spic	Ross	Str	Vac	DR	Own	4	Own	Sp	27.9	LO4ID	460	150	5300	34x7	34x7
Autocar D	2-2½	3500	Own	L	6	4 x4¾	358.0	38.4	82@2400	G	Per	Long	Spic	Ross	Str	Vac	DR	Own	4	Own	2 R	33.5	LO4ID	460	150	5600	34x7	34x7D
†Autocar SH	2½-3	4300	Own	L	6	4¼x4¾	404.0	43.4	92@2400	G	Own	Long	Spic	Ross	Str	Gra	DR	Own	4	Own	2 R	44.0	O2IM	328	114	6770	34x7	34x7D
Autocar SCH	2½-3	4300	Own	L	6	4¼x4¾	404.0	43.4	92@2400	G	Own	Long	Spic	Ross	Str	Vac	DR	Own	4	Own	2 R	44.0	O2IM	328	157	6900	34x7	34x7D
†Autocar H	3	4100	Own	L	4	4½x5½	350.0	32.4	45@1450	G	Own	Long	Spic	Ross	Str	Gra	DR	Own	4	Own	2 R	46.6	O2IM	328	114	6770	34x7	34x7D
†Autocar HS	3½	4600	Own	L	4	4½x5½	350.0	32.4	45@1450	G	Own	Long	Spic	Ross	Str	Gra	DR	Own	4	Own	2 R	54.3	O2IM	516	114	7600	40x8	40x8D
†Autocar SHS	3-3½	4800	Own	L	6	4¼x4¾	404.0	43.4	92@2400	G	Own	Long	Spic	Ross	Str	Gra	DR	Own	4	Own	2 R	54.3	O2IM	516	114	8100	40x8	40x8D
Autocar SCHS	3-3½	4800	Own	L	6	4¼x4¾	404.0	43.4	92@2400	G	Own	Long	Spic	Ross	Str	Vac	DR	Own	4	Own	2 R	54.3	O2IM	516	157	8180	40x8	40x8D
Autocar N	3-3½	4600	Own	L	6	4¼x4¾	404.0	43.4	92@2400	G	Own	Long	Spic	Ross	Str	Vac	DR	Own	4	Own	2 R	41.2	OL4IH	574	174	7990	36x8	36x8D
Autocar TEA	3-3½	5350	Own	L	6	4¼x4¾	404.0	43.4	92@2400	G	Own	Long	Spic	Ross	Str	Vac	DR	Own	12	Own	2 R	101.1	LO4ID	602	192	8900	36x8	36x8D
Autocar TFA	3½-5	6100	Own	L	6	4½x4¾	453.0	48.6	101@2400	G	Own	Long	Spic	Ross	Str	Vac	DR	Own	12	Own	2 R	101.3	LO4ID	602	192	9300	38x9	38x9D
Autocar C	3½-5	5500	Own	L	6	4½x4¾	453.0	48.6	101@2400	G	Own	Long	Spic	Ross	Str	Vac	DA	Own	4	Own	2 R	51.7	O2IM	516	172	9500	42x9	42x9D
Autocar F	7½	6800	Own	L	6	4½x4¾	453.0	48.6	101@2400	G	Own	Br-L	Spic	Ross	Str	Vac	DR	Br-L	7	Tim	Wo	94.0	LT4DV	674	173	11000	36x7S	40x8SD
*Autocar G	10	9000	Own	L	6	4½x4¾	453.0	48.6	101@2400	G	Own	Br-L	Spic	Ross	Str	Vac	DR	Br-L	7	Tim	Wo	100.0	T6IA	720	171	13000	36x8	36x8D
Brockway 60	*6000	995	Con	L	6	3⅜x4	214.7	27.3	61@3000	C	G & O	Borg	Spic	Ross	Zen	P	Aut	W-G	3	Col	Sp	19.8	B4IM	297	132	*3200	30x5	30x5
Brockway 65	6500	1195	Con	L	6	3⅜x4⅝	248.2	27.3	65@2700	C	G & O	Borg	Spic	Ross	Zen	Vac	Aut	Br-L	3	Col	Sp	21.3	C4IM	244	137	3400	30x5	30x5
Brockway 75	7500	1290	Con	L	6	3⅜x4⅝	248.2	27.3	65@2700	C	G & O	Borg	Spic	Ross	Zen	Vac	Aut	Br-L	4	Col	Sp	25.6	C4IM	244	137	3450	32x6	32x6
Brockway 80	8000	1295	Con	L	6	3⅜x4	214.7	27.3	61@3000	C	G & O	Borg	Spic	Ross	Zen	P	Aut	W-G	4	Tim	Sp	—	CB4IM	—	137	3800	6.00-20	6.00-20D
Brockway 90	9000	1525	Con	L	6	3⅜x4⅝	248.2	27.3	65@2700	C	G & O	Borg	Spic	Ross	Zen	P	Aut	W-G	4	Tim	Sp	20.9	CB4IM	292	140	4050	32x6	32x6
Brockway 120	12000	1990	Con	H	6	4 x4⅝	311.0	38.4	73@2400	C	G & O	Br-L	Spic	Ross	Zen	P	Aut	Br-L	4	Tim	Sp	31.3	L4IH	353	156	5400	32x6	32x6D
Brockway 140	14000	2495	Con	H	6	4 x4⅝	311.0	38.4	73@2400	C	G & O	Br-L	Spic	Ross	Zen	P	Aut	Br-L	4	Wis	2 R	35.3	L4IHV	356	156	6100	32x6	32x6D
Brockway 141	17000	2935	Con	H	6	4 x4⅝	311.0	38.4	73@2400	C	G & O	Br-L	Spic	Ross	Zen	P	Aut	Br-L	4	Wis	2 R	46.2	L4IHV	356	170	6500	32x6	32x6D
Brockway 170	17000	3160	Con	H	6	4⅛x4¾	380.9	40.8	89@2400	C	G & O	Br-L	Spic	Ross	Zen	P	Aut	Br-L	4	Wis	2 R	46.6	L4IHV	380	170	7100	32x6	32x6D
Brockway 175	17500	3660	Con	H	6	4⅜x4¾	427.5	45.9	100@2400	C	G & O	—	Spic	Ross	Zen	P	Aut	—	5	Wis	2 R	45.3	L4IHV	380	170	7200	34x7	34x7D
Brockway 195	19500	3820	Con	H	6	4⅛x4¾	380.9	40.8	89@2400	C	G & O	Br-L	Spic	Ross	Zen	P	Aut	Br-L	4	Wis	2 R	49.5	L4IHV	471	170	8100	34x7	34x7D
Brockway 220	22000	4560	Con	H	6	4⅜x4¾	427.5	45.9	100@2400	C	G & O	Br-L	Spic	Ross	Zen	P	Aut	Br-L	4	Wis	2 R	50.7	L4IHV	546	170	8400	36x8	36x8D
Brockway 250	25000	5950	Con	H	6	4⅜x4¾	427.5	45.9	100@2400	C	Long	Br-L	Spic	Ross	Zen	P	Aut	Br-L	4	Tim	Wo	63.7	LT4IVA	664	182	10000	40x8	40x8D
Brockway 290	30000	7250	Con	L	6	4¾x5¾	611.4	54.1	116@1800	C	Long	Br-L	Spic	Ross	Str	P	L-N	Br-L	7	Tim	Wo	95.0	T4IA	676	182	10750	38x7P	40x14S
*Brockway 640	40000	9700	Con	L	6	4¾x5¾	611.4	54.1	116@1800	C	Long	Br-L	Spic	Ross	Str	P	L-N	Br-L	7	Tim	Wo	90.9	T4IA	864	212	14000	38x7P	36x10S
Chevrolet	½	355	Own	H	6	3⅛x3¾	194.0	26.3	50@2600	G	Har	Own	Own	Own	Car	P	DR	Own	3	Own	Sp	13.6	O4IM	101	109	*1880	19x4.75	19x4.75
Chevrolet	1½	590	Own	H	6	3⅛x3¾	194.0	26.3	50@2600	G	Har	Own	Own	Own	Car	P	DR	Own	4	Own	Sp	33.4	O4IM	170	157	3015	30x5	30x5D
Chevrolet	1½	520	Own	H	6	3⅛x3¾	194.0	26.3	50@2600	G	Har	Own	Own	Own	Car	P	DR	Own	4	Own	Sp	33.4	——	—	131	2700	30x5	32x6
Commerce Series S 11	1	1600	Bud	L	6	3⅜x4½	241.6	27.3	53@2200	G	Long	Br-L	Blo	Han	Zen	Vac	Aut	Br-L	4	Col	Sp	25.5	L4IH	297	142	3900	30x5P	30x5P
Commerce Series S 11	1½	1900	Bud	L	6	3⅜x4½	241.6	27.3	53@2200	G	Long	Br-L	Blo	Han	Zen	Vac	Aut	Br-L	4	Tim	Sp	29.2	L4IH	297	162	4300	30x5P	30x5DP
Commerce Series 40	1½	2990	Bud	L	6	3¾x5	331.0	33.7	64@2100	G	Long	Ful	Blo	Han	Zen	Vac	Aut	Ful	4	Tim	Wo	34.8	L4IH	394	168	4700	34x5P	34x5DP
Commerce Series S 11	2	2030	Bud	L	6	3⅜x4½	241.6	27.3	53@2200	G	Long	Br-L	Blo	Han	Zen	Vac	Aut	Br-L	4	Tim	Sp	29.2	L4IH	297	162	4500	32x6P	32x6D
Commerce Series 40	2	3240	Bud	L	6	3¾x5	331.0	33.7	64@2100	G	Long	Ful	Blo	Han	Zen	Vac	Aut	Ful	4	Tim	Wo	34.6	L4IH	394	168	4900	36x6	36x6D
Commerce Series 40	2½	3240	Bud	L	6	3¾x5	331.0	33.7	64@2100	G	Long	Ful	Blo	Han	Zen	Vac	Aut	Ful	4	Tim	Wo	34.8	L4IH	394	168	5100	36x6P	36x6D
Commerce Series 60	2½	4580	Bud	L	6	4⅛x5⅛	410.9	40.8	83@2100	G	Long	Ful	Blo	Han	Zen	Vac	Aut	Ful	5	Tim	Wo	63.0	L4IH	584	175	7000	36x6P	36x6D
Commerce Series 60	3	4680	Bud	L	6	4⅛x5⅛	410.9	40.8	83@2100	G	Long	Ful	Blo	Han	Zen	Vac	Aut	Ful	5	Tim	Wo	63.0	L4IH	584	175	7100	36x6P	38x7D
Commerce Series 80	3½	5250	Bud	L	6	4⅛x5⅛	411.0	40.8	83@2100	G	Long	Own	Blo	Ross	Zen	Vac	Aut	Br-L	7	Tim	Wo	98.2	——	—	175	8200	36x6S	36x6S
Commerce Series 80	4	5330	Bud	L	6	4⅛x5⅛	411.0	40.8	83@2100	G	Long	Own	Blo	Ross	Zen	Vac	Aut	Br-L	7	Tim	Wo	98.2	——	—	175	8400	36x6S	36x14S
Commerce Series 100	5	5830	Bud	L	6	4⅛x5⅛	411.0	40.8	83@2100	G	Long	Own	Blo	Ross	Zen	Vac	Aut	Br-L	7	Tim	Wo	95.0	——	793	175	9600	36x6S	40x14S
Day Elder 60	1	895	Con	L	6	3⅜x4	214.7	27.3	61@3000	C	G & O	Borg	Spic	Ross	Zen	P	DR	W-G	4	Tim	Sp	36.3	B4IH	344	135	*3300	20x6.00B	20x6.50B
Day Elder 75	1½	945	Con	L	6	3⅜x4	214.7	27.3	61@3000	C	B&O	Borg	Spic	Ross	Zen	P	DR	W-G	4	Tim	Sp	36.3	B4IM	344	135	3400	20x6.00B	20x6.00DB
Day Elder 85	1½-2	1395	Con	L	6	3⅜x4⅝	248.3	27.3	65@2700	C	Per	Br-L	Spic	Ross	Zen	P	DR	W-G	4	Tim	Sp	42.3	L4IH	380	135	3850	20x6.00B	20x6.50DB
Day Elder 110	2	1825	Con	L	6	3⅜x4⅝	248.3	27.3	65@2700	C	Per	Br-L	Spic	Ross	Zen	P	DR	Br-L	4	Tim	Sp	44.9	L4IH	452	156	4880	20x7.00B	20x7.00DB
Day Elder 130	2½	2225	Con	H	6	4 x4⅛	311.0	38.4	73@2400	C	Per	Br-L	Spic	Ross	Zen	P	DR	Br-L	4	Tim	Sp	40.7	L4IH	578	157	6600	20x7.50B	20x7.50DB
Day Elder 160	3	2775	Con	H	6	4 x4½	339.3	38.4	82@2400	C	Per	Br-L	Spic	Ross	Zen	P	DR	Br-L	4	Tim	Wo	36.1	L4IH	659	156	6800	20x7.50B	20x9.00DB
Day Elder 200	4	3395	Con	H	6	4 x4½	339.3	38.4	82@2400	C	Per	Br-L	Spic	Ross	Zen	P	DR	Br-L	4	Tim	Wo	43.5	L4IHV	768	156	7600	20x9.00B	20x9.00B
Day Elder 240	5	4295	Con	H	6	4¾x4¾	427.5	45.9	100@2600	C	Per	Br-L	Blo	Ross	Zen	Vac	DR	Br-L	4	Tim	Wo	50.8	L4IHV	921	162	9500	38x9P	38x9DP
*Day Elder 285	8	5295	Con	H	6	4¾x4¾	427.5	45.9	100@2600	C	Per	Br-L	Blo	Ross	Zen	Vac	DR	Br-L	7	Tim	Wo	71.2	L6IHV	1192	164	12000	20x8.25B	20x8.25DB
*Day Elder 345	10	6395	Con	H	6	4¾x4¾	427.5	45.9	100@2600	C	Per	Br-L	Blo	Ross	Zen	Vac	DR	Br-L	7	Tim	Wo	79.9	W6IA	1192	164	12500	20x9.00B	20x9.00DB
*Day Elder 402	12	7495	Con	L	6	4¾x5¾	611.4	54.2	127@2300	G	Per	Br-L	Blo	Ross	Zen	P	DR	Br-L	7	Tim	Wo	84.6	W6IA	1192	164	14800	20x9 75B	20x9 75DB
Diamond T 216	1½	695	Her	L	6	3⅜x4¼	228.0	27.3	56@2400	G	G & O	Borg	Spic	Ross	Zen	P	Aut	W-G	4	Cla	Sp	—	L4IH	252	135½	3260	20x6.50B	20x6.50B
Diamond T 316	2	1095	Her	L	6	3⅜x4¼	263.0	29.4	65@2400	G	G & O	Borg	Spic	Ross	Zen	P	Aut	WG	4	Cla	Sp	—	L4IH	350	155	4400	20x6.50B	20x6.50DB
Diamond T 303	2-2½	1585	Her	L	6	3¾x4½	298.0	33.7	67@2400	G	G & O	Borg	Spic	Ross	Zen	P	Aut	Cov	4	Cla	Sp	—	L4IHV	350	159¾	5000	20x7.00B	20x7.00DB
Diamond T 551	2½-3	2250	Her	L	6	4 x4½	339.0	38.4	74@2400	G	G & O	Cov	Spic	Ross	Zen	P	Aut	Cov	4	Tim	Sp	—	L4IHV	408	168	5600	20x7.50B	20x7.50DB
Diamond T 504	3	2650	Her	L	6	4 x4½	339.0	38.4	74@2400	G	G & O	Cov	Spic	Ross	Zen	P	Aut	Cov	4	Wis	2 R	—	L4IHV	408	176½	6400	20x8.25B	20x8.25DB
Diamond T 506	3	2950	Her	L	6	4¼x4½	383.0	43.3	85@2200	G	G & O	Cov	Spic	Ross	Zen	P	Aut	Cov	5	Wis	2 R	—	L4IHV	408	184	6400	20x8.25B	20x8.25DB
Diamond T 603	3-4	3300	Her	L	6	4⅜x4¾	428.4	45.9	94@2200	G	G & O	Cov	Spic	Ross	Zen	P	Aut	Cov	5	Wis	2 R	—	L4IHV	499	169	7500	20x9.00B	20x9.00DB
Diamond T 606	3-4	3600	Her	L	6	4½x5¼	501.0	48.6	100&2200	G	G & O	Cov	Spic	Ross	Zen	P	Aut	Cov	5	Wis	2 R	—	L4IHV	499	187½	7500	20x9.00B	20x9.00DB
Diamond T 750	4-5	4650	Her	L	6	4¾x5¼	529.0	51.4	114@2200	G	G & O	Cov	Spic	Ross	Zen	P	Aut	Cov	5	Wis	2 R	—	W41	552	178	8300	22x9.75B	22x9.75DB
*Diamond T 801	4	4140	Her	L	6	4⅜x4¾	428.4	45.9	94@2200	G	G & O	Cov	Spic	Ross	Zen	P	Aut	Br-L	7	Own	Wo	—	L6IHV	571	189½	8300	36x8P	36x8P
*Diamond T 1201	6	5600	Her	L	6	4½x5¼	501.0	48.6	100@2200	G	G & O	Cov	Spic-Blo	Ross	Zen	P	Aut	Br-L	7	Tim	Wo	—	W41A	238	190	11000	34x7P	34x7DP
*Diamond T 1602	8	6400	Her	L	6	4¾x5¼	529.0	51.3	104@2400	G	G & O	Br-L	Spic-Blo	Ross	Zen	P	Aut	Br-L	7	Tim	Wo	—	W41A	238	190	11700	36x8P	36x8DP
*Diamond T 1603	8	7500	Wak	L	6	5 x5¾	677.4	60.0	127@2000	G	G & O	Br-L	Spic-Blo	Ross	Zen	P	Aut	Br-L	7	Tim	Wo	—	W41A	238	194	12500	36x8P	36x8D
Dodge Bros. UF 10	½	375	Own	L	4	3⅜x4¾	196.0	21.0	48@2800	G	Fed	Borg	Own	W-G	Car	P	DR	Own	3	Own	Sp	14.2	O4IH	121	109	*2050	19x5.00	19x5.00
Dodge Bros. F 10	½	445	Own	L	6	3¼x4¼	211.5	25.3	66@3200	C	Fed	Borg	Un	W-G	Car	P	DR	Own	3	Own	Sp	14.2	O4IH	121	109	2100	19x5.25	19x5.25
Dodge Bros. U 1	¾	490	Own	L	4	3⅝x4¼	196.0	21.0	45@2800	G	Fed	Borg	Spic	Han	Car	Vac	NE	Own	3	Own	Sp	21.6	O4IH	189	124	2260	20x6.00	20x6.00
Dodge Bros. DA 1	¾	595	Own	L	6	3⅜x3⅞	208.0	27.3	63@3200	C	Fed	Bcrg	Spic	Han	Zen	Vac	NE	Own	3	Own	Sp	36.8	O4IH	189	124	2360	20x6.00	20x6.00
Dodge Bros. U 1	1	495	Own	L	4	3⅝x4¼	196.0	21.0	45@2800	G	Fed	Borg	Spic	Han	Car	Vac	NE	Own	4	Own	Sp	36.1	O4IH	205	133	2590	20x6.00	32x6
Dodge Bros. DA 1	1	595	Own	L	6	3⅜x3⅞	208.0	27.3	63@3200	C	Fed	Borg	Spic	Han	Zen	Vac	NE	Own	4	Own	Sp	33.4	O4IH	205	133	2690	20x6.00	32x6
Dodge Bros. UF 30	1½	595	Own	L	4	3⅝x4¾	196.0	21.0	48@2800	G	Fed	Borg	Cle	W-G	Car	P	DR	Own	4	Own	Sp	37.1	O4IH	187	136	2750	20x6.00	32x6
Dodge Bros. UF 31	1½	670	Own	L	4	3⅝x4¾	196.0	21.0	48@2800	G	Fed	Borg	Cle	W-G	Car	P	DR	Own	4	Own	Sp	37.1	O4IH	229	165	2925	20x6.00	32x6
Dodge Bros. F 30	1½	695	Own	L	6	3¼x4¼	211.5	25.3	66@3200	C	Fed	Borg	Cle	W-G	Car	P	DR	Own	4	Own	Sp	37.1	O4IH	229	165	2975	20x6.00	32x6
Dodge Bros. F 31	1½	770	Own	L	6	3¼x4¼	211.5	25.3	66@3200	C	Fed	Borg	Cle	W-G	Car	P	DR	Own	4	Own	Sp	37.1	O4IH	229	165	3025	20x6.00	32x6
Dodge Bros. F 35	1½	1425	Own	L	6	3⅜x3⅞	208.0	27.3	63@3200	C	Long	Borg	Cle	Han	Zen	P	DR	Own	4	Own	Sp	41.4	O4IH	311	140	3975	20x6.00	20x6.00D
Dodge Bros. F 36	1½	1485	Own	L	6	3⅜x3⅞	208.0	27.3	63@3200	C	Long	Borg	Cle	Han	Zen	P	DR	Own	4	Own	Sp	41.4	O4IH	311	165	4175	20x6.00	20x6.00D
*Dodge Bros. F 40	2	1995	Own	L	6	3⅝x5	309.6	31.5	96@3000	G	Long	Borg	Cle	Sag	DL	P	DR	Own	4	Own	Sp	43.7	O4IH	350	150	5425	20x6.50	20x6.50D
*Dodge Bros. F 41	2	2085	Own	L	6	3⅝x5	309.6	31.5	96@3000	G	Long	Borg	Cle	Sag	DL	P	DR	Own	4	Own	Sp	43.7	O4IH	350	165	5465	20x6.50	20x6.50D
Dodge Bros.	3	1515	Own	L	6	3⅜x4½	241.0	27.3	78@3000	C	Long	Borg	Un	Han	Zen	Vac	NE	Own	4	Own	Sp	46.3	O4IH	382	135	4235	32x6	32x6D
Dodge Bros.	3	1565	Own	L	6	3⅜x4½	241.0	27.3	78@3000	C	Long	Borg	Un	Han	Zen	Vac	NE	Own	4	Own	Sp	41.4	O4IH	382	165	4520	32x6	32x6D
Dodge Bros.	3	1615	Own	L	6	3⅜x4½	241.0	27.3	78@3000	C	Long	Borg	Un	Han	Zen	Vac	NE	Own	4	Own	Sp	46.3	O4IH	382	185	4715	32x6	32x6D
Dodge Bros. F 60	3	2645	Own	L	6	3⅝x5	309.6	31.5	96@3000	G	Long	Borg	Cle	Sag	DL	P	DR	Own	4	Own	2 R	48.8	O4IH	416	146	5835	32x6	32x6D
*Dodge Bros. F 61	3	2575	Own	L	6	3⅝x5	309.6	31.5	96@3000	G	Long	Borg	Cle	Sag	DL	P	DR	Own	4	Own	Sp	48.8	O4IH	416	170	6075	32x6	32x6D
*Dodge Bros. F 62	3	2695	Own	L	6	3⅝x5	309.6	31.5	96@3000	G	Long	Borg	Cle	Sag	DL	P	DR	Own	4	Own	Sp	48.8	O4IH	416	195	6190	32x6	32x6D
Essex Com.	¾	445	Own	L	6	2¾x4½	163.0	18.2	55@3300	C	Har	Own	Spic	Gem	Mar	Vac	Aut	Own	3	Own	Sp	5.40	4M	—	110	1970	20x5	20x5.50
Federal D 2	*1½	795	Con	L	4	3⅞x4¼	200.5	24.0	48@2500	C	Long	Borg	Spic	Gem	Zen	P	DR	W-G	4	Cla	Sp	40.8	L4IH	377	131	*3280	20x6.00	32x6
Federal E 2	*1½	895	Con	L	6	3⅜x4	215.0	27.3	60@2600	C	Long	Borg	Spic	Gem	Zen	P	DR	W-G	4	Cla	Sp	36.3	L4IH	377	132	3330	20x6.00	32x6
Federal F 7	*1¾	1525	Con	L	6	3⅜x4⅝	248.0	27.3	64@2500	C	Long	Borg	Spic	Gem	Zen	P	DR	Own	4	Tim	Sp	29.2	L4IH	414	132	3810	30x5	30x5D
Federal A 6	*2	1855	Con	L	6	3⅜x4⅝	248.0	27.3	64@2500	C	Long	Borg	Pet	Ross	Zen	Vac	DR	Own	4	Cla	Sp	38.5	L4IH	450	151	4635	32x6	32x6D
Federal A 6 T	*2½	2185	Con	L	6	3⅜x4⅝	248.0	27.3	64@2500	C	Long	Borg	Pet	Ross	Zen	Vac	DR	Own	4	Tim	Sp	47.1	L4IHV	659	151	5185	32x6	32x6D
Federal A 6 T W	*2½	2360	Con	L	6	3⅜x4⅝	248.0	27.3	64@2500	C	Long	Borg	Pet	Ross	Zen	Vac	DR	Own	4	Tim	Wo	52.8	L4IHV	659	151	5185	32x6	32x6D
*Federal D 2 S W	*2½-3	1050	Con	L	4	3⅞x4¼	200.5	24.0	48@2500	C	Long	Borg	Pet	Gem	Zen	P	DR	W-G	4	Cla	Sp	40.8	L6IH	566	140	3980	20x6.00	32x6
*Federal E 2 S W	*2½-3	1150	Con	L	6	3⅜x4	215.0	27.3	60@2600	C	Long	Borg	Pet	Gem	Zen	P	DR	W-G	4	Cla	Sp	40.8	L6IH	566	145	4030	20x6.00	32x6
*Federal D 2 D	*2½-3	1350	Con	L	4	3⅞x4¼	200.5	24.0	48@2500	C	Long	Borg	Pet	Gem	Zen	P	DR	W-G	4	Cla	Sp	40.8	L6IH	566	140	4235	20x6.00	32x6
*Federal E 2 D	*2½-3	1450	Con	L	6	3⅜x4	215.0	27.3	60@2600	C	Long	Borg	Pet	Gem	Zen	P	DR	W-G	4	Cla	Sp	40.8	L6IH	566	140	4310	20x6.00	32x6
Federal T 10 B	*2½ 3	2740	Con	H	6	4 x4⅛	311.0	38.4	75@2200	C	Long	Borg	Pet	Ross	Zen	P	DR	Own	4	Tim	Sp	44.5	L4IHV	659	165	6645	34x7	34x7D
Federal T 10 W	*2½-3	2915	Con	H	6	4 x4⅛	311.0	38.4	75@2200	C	Long	Borg	Pet	Ross	Zen	P	DR	Own	4	Tim	Wo	44.0	L4IHV	659	165	6645	34x7	34x7D
Federal T 10 D R	*2½-3	2915	Con	H	6	4 x4⅛	311.0	38.4	75@2200	C	Long	Borg	Pet	Ross	Zen	P	DR	Own	4	Tim	2 R	45.6	L4IHV	659	165	6645	34x7	34x7D
Federal U 6	*3-3½	3860	Con	H	6	4 x4½	339.0	38.4	85@2200	C	Long	Borg	Pet	Ross	Str	P	DR	Br-L	7	Tim	Wo	64 6	L4IHV	676	165	7315	34x7	34x7D
Federal U 6 D R	*3-3½	3860	Con	H	6	4 x4½	339.0	38.4	85@2200	C	Long	Borg	Pet	Ross	Str	P	DR	Br-L	7	Tim	2 R	69.6	L4IHV	767	165	7315	34x7	34x7D
*Federal A 6 S W	*4	2360	Con	L	6	3⅜x4⅝	248.0	27.3	64@2500	C	Long	Borg	Pet	Ross	Zen	Vac	DR	Own	4	Cla	Sp	38.5	L6IHV	675	164	5620	32x6	32x6D
Federal 4 C 6 A	*4-5	4735	Con	H	6	4⅛x4¾	381.0	40.8	90@2200	C	Long	Borg	Pet	Ross	Zen	P	DR	Br-L	7	Tim	Wo	72.2	L4IHV	894	192	8460	36x8	36x8D
Federal 4 C 6 A D R	*4-5	4735	Con	H	6	4⅛x4¾	381.0	40.8	90@2200	C	Long	Borg	Pet	Ross	Zen	P	DR	Br-L	7	Tim	2 R	80.6	L4IHV	894	192	8460	36x8	36x8D
Federal 4 C 6 A B	*4-5	4960	Con	H	6	4⅛x4¾	381.0	40.8	90@2200	C	Long	Borg	Pet	Ross	Zen	P	DR	Br-L	7	Tim	Wo	72.2	T4IA	921	192	8980	36x8	36x8D
Federal 4 C 6 A B D R	*4-5	4960	Con	H	6	4⅛x4¾	381.0	45.9	90@2200	C	Long	Borg	Pet	Ross	Zen	P	DR	Br-L	7	Tim	2 R	80.6	T4IA	421	192	8980	36x8	36x8D
Federal X 8	*7½	5085	Con	L	4	5 x6	471.0	40.0	61@1350	G

Major Specifications and Mechanical Details of 1931 Commercial Cars

(CONTINUED FROM PAGE FIVE)

Make and Model	Capacity—Tons or Lbs.	Chassis Price	Engine	Valve Arr'g'm't	No. of Cyls.	Bore and Stroke	Piston Disp.	Tax H. P.	Max. Brake H. P. and Peak R. P. M.	Type Camshaft Drive	Radiator Make	Clutch Make	Universals Make	Steering Gear Make	Carburetor Make	Fuel Feed Type	Make Electr'l System	Make Transmission	No. Spds. For.	Rear Axle Make	Type Final Drive	Final Gear Reduction	Type Service Brakes	Area Service Brakes	Standard Wheel Base	Chassis Wgt.	Standard Tire Sizes Front	Standard Tire Sizes Rear
General Motors T 42	*15000	1845	Buick	H	6	3⅛x4⅜	257.5	28.3	76@2500	G	Long	Own	Spic	Sag	Mar	P	DR	Own	4	Own	Sp	33.4	B4IM	524	141	4725	32x6P	32x6DP
General Motors T-44	*16000	1935	Buick	H	6	3⅛x4⅜	257.5	28.3	76@2500	G	Long	Own	Spic	Sag	Mar	P	DR	Own	4	Own	2R	40.9	B4IM	524	141	4005	32x6P	32x6DP
General Motors T-45	*16000	1990	Own	H	6	3⅛x4⅜	257.5	28.3	76@2500	G	Long	Own	Spic	Sag	Mar	P	DR	Own	4	Own	2R	50.7	B4IM	524	141	5050	32x6P	32x6DP
General Motors T-51	*19000	2565	Own	H	6	3¾x5	331.4	33.7	94@2500	G	Long	Own	Spic	Sag	Mar	P	DR	Own	4	Own	Sp	40.6	B4IM	574	155	5955	34x7P	34x7DP
General Motors T-52	*19000	2690	Own	H	6	3¾x5	331.4	33.7	94@2500	G	Long	Own	Spic	Sag	Mar	P	DR	Own	4	Own	2R	49.8	B4IM	574	155	6095	34x7P	34x7DP
General Motors T-55	*19000	2690	Own	H	6	3¾x5	331.4	33.7	94@2500	G	Long	Own	Spic	Sag	Mar	P	DR	Own	4	Own	Wo	52.5	B4IM	685	154	6925	34x7P	34x7DP
General Motors T-60	*22000	3035	Buick	H	6	3¾x5	331.4	33.7	94@2500	G	Long	Own	Spic	Sag	Str	P	DR	Own	4	Own	Wo	52.5	B4IMV	685	154	6965	20x9.00B	20x9.00DB
General Motors T-61	*22000	3445	Own	H	6	3¾x5	331.4	33.7	94@2500	G	Long	Own	Pet	Sag	Str	P	DR	Own	12	Own	Wo	142.5	B4IM	793	155	7500	20x9.00B	20x9.00DB
General Motors T-82	*24000	3795	Own	H	6	3¾x5	331.4	33.7	94@2500	G	Long	Own	Spic	Sag	Str	P	DR	Own	12	Own	Wo	142.5	B4IMV	865	155	7670	20x9.00B	20x9.00DB
General Motors T-83	*24000	3990	Own	H	6	3¾x5	331.4	33.7	94@2500	G	Long	Own	Spic	Sag	Str	P	DR	Own	4	Own	2R	53.3	B4IMV	865	171	10630	20x9.75B	20x9.75DB
General Motors T-85	*30000	5600	Own	H	6	4¼x5½	468.0	43.3	115@2100	C	Long	Own	Spic	Sag	Str	P	DR	Own	4	Own	2R	53.3	B4IMV	865	171	10630	20x9.75B	20x9.75DB
†General Motors T-90	*28000	5295	Own	H	6	4¼x5½	468.0	43.3	115@2100	C	Long	Own	Pet	Sag	Str	P	DR	Own	12	Own	Wo	129.0	BrIA	868	185	9400	20x7.50B	20x7.50DB
†General Motors T-95	*40000	7545	Own	H	6	4¼x5½	468.0	43.3	115@2100	C	Long	Own	Spic	Sag	Str	P	DR	Own	4	Own	Wo	53.3	B6IA	1191	189	13250	34x7P	34x7DP
†General Motors T-96	*34000	7195	Own	H	6	4¼x5½	468.0	43.3	115@2100	C	Long	Own	Spic	Sag	Str	P	DR	Own	4	Own	2R	51.1	B6IA	1191	189	12850	34x7P	34x7DP
Gramm A X 4	1	795	Con	L	4	2⅞x4	200.4	24.0	50@2800	C	Per	Jon	Blo	Ross	Til	P	Aut	W-G	4	Tim	Sp	36.3	L4IH	380	131	*3300	20x6.00	20x8.50
Gramm A X 6	1	825	Con	L	6	3⅜x4	214.7	27.3	61@3000	C	Per	Jon	Blo	Ross	Til	P	Aut	W-G	4	Tim	Sp	36.3	L4TH	380	131	3550	20x6.00	20x8.50
Gramm B X 4	1½	895	Con	L	4	3⅞x4¼	200.4	24.0	50@2800	C	Per	Jon	Blo	Ross	Til	P	Aut	W-G	4	Tim	Sp	36.3	L4IH	380	131	3475	20x6.00	20x6.00D
Gramm B X 6	1½	995	Con	L	6	3⅜x4	214.7	27.3	61@3000	C	Per	Jon	Blo	Ross	Til	P	Aut	W-G	4	Tim	Sp	36.3	L4IH	380	131	3725	20x6.00	22x8.00D
Gramm B	1¾	1495	Lyc	L	6	3¼x4½	224.0	25.3	61@2900	G	Per	Own	Blo	Ross	Zen	Vac	Aut	Cov	4	Tim	Sp	34.3	L4IH	278	140	4150	20x6.50	20x6.50D
†Gramm C X 4	2	1095	Con	L	4	4⅛x4¼	227.0	27.2	55@2600	G	Per	Jon	Blo	Ross	Til	P	Aut	W-G	4	Tim	Sp	37.0	L4IH	452	121	3900	20x6.50	20x6.50D
Gramm 16	2	1095	Knight	S	4	2⅞x4⅜	177.9	20.7	52@2600	C	Own	Borg	Blo	Ross	Til	Vac	Aut	Cov	4	Eat	Sp	—	——	——	151	——	30x5	32x6
Gramm C X 6	2	1295	Con	L	6	3⅜x4⅜	248.2	27.3	70@3000	C	Per	Jon	Blo	Ross	Til	P	Aut	W-G	4	Tim	Sp	37.0	L4IH	452	131	4150	20x6.50	20x6.50D
Gramm 21	2½	1295	Knight	S	6	3⅜x4⅜	255.	27.3	70@2600	C	Own	Jon	Blo	Ross	Til	Vac	Aut	Cov	4	—	—	—	——	——	164	——	32x6	34x7
Gramm C	2	1795	Lyc	L	6	3⅜x4½	278.6	31.5	82@2600	G	Per	Own	Blo	Ross	Zen	P	Aut	Cov	4	Tim	Sp	31.0	L4IH	353	160	4850	20x7.00	20x7.00D
Gramm D	2½	1995	Lyc	L	8	3¾x4½	299.0	33.7	90@2200	G	Per	Jon	Blo	Ross	Zen	P	Aut	Cov	4	Tim	Sp	33.0	L4IHV	339	160	5200	20x7.50	20x7.50D
Gramm 75	3	2395	Knight	S	6	3⅝x4⅝	255.	27.3	70@2600	C	Own	Jon	Blo	Ross	Til	Vac	Aut	Cov	4	Wis	2R	—	——	—	190	——	20x7.50	20x7.50D
Gramm E	3	2595	Lyc	L	6	3⅞x5	353.8	36.0	90@2200	C	Per	Own	Blo	Ross	Zen	P	Aut	Cov	4	Tim	Sp	35.0	L4IHV	659	160	5950	20x8.25	20x8.25D
Gramm E Y	3	3595	Con	H	6	4¼x4¾	381.6	40.8	90@2200	C	Per	Ful	Blo	Ross	Zen	P	Aut	Cov	4	Tim	Sp	30.0	L41HA	—	190	7200	20x7.50	20x7.50D
Gramm G Y	4	4345	Con	H	6	4⅝x4¾	428.4	45.9	100@2200	C	Per	Ful	Blo	Ross	Zen	P	Aut	Cov	4	Wis	2 R	28 0	BW41M	736	210	7700	20x8.25	20x8.25D
Gramm G W	5	5175	Con	H	6	4⅝x4¾	428.0	45.9	100@2200	C	Per	Ful	Blo	Ross	Zen	P	Aut	Cov	4	Wis	2 R	—	41A	864	157	9500	20x9.00	20x9.00D
Gramm H Y	5	6545	Con	L	8	4¾x5¾	611.4	54.1	127@2300	G	Per	Ful	Blo	Ross	Zen	P	Aut	Ful	4	Wis	2 R	25.2	41A	996	236	10100	20x9.00	20x9.00
Indiana 64	6500	1195	Con	L	6	3⅜x4⅝	248.2	27.3	65@2700	C	Long	Borg	Spic	Ross	Str	Vac	Aut	Br-L	3	Col	Sp	21.3	C4IM	244	137	*3400	30x5	30x5
Indiana 74	7500	1290	Con	L	6	3⅜x4⅝	248.2	27.3	65@2700	C	Long	Borg	Spic	Ross	Str	Vac	Aut	Br-L	4	Col	Sp	25.8	C4IM	190	137	3450	32x6	32x6
Indiana 89	9000	1525	Con	L	6	3⅜x4⅝	248.2	27.3	65@2700	C	Long	Borg	Spic	Ross	Str	Vac	Aut	Br-L	4	Col	Sp	20.9	C4IM	292	149	4050	32x6	32x6
Indiana 111 XW	12500	1850	Her	L	4	4 x5	251.3	25.6	48@2600	C	McC	Borg	Spic	Ross	Str	Vac	Aut	Br-L	4	Wis	2 R	35.2	K2IM	270	120	3740	32x6	32x6D
Indiana 120	12000	1990	Con	H	6	4 x4⅛	311.0	38.4	73@2400	C	G & O	Br-L	Spic	Ross	Str	P	Aut	Br-L	4	Tim	Sp	31.3	L4IH	353	156	5400	32x6	32x6D
Indiana 140	14000	2495	Con	H	6	4 x4⅛	311.0	38.4	73@2400	C	G & O	Br-L	Spic	Ross	Str	P	Aut	Br-L	4	Wis	2 R	35.3	84IHV	356	156	6100	32x6	32x6D
Indiana 141	17000	2935	Con	H	6	4 x4⅛	311.0	38.4	73@2400	C	G & O	Br-L	Spic	Ross	Str	P	Aut	Br-L	4	Wis	2 R	46.2	L4IHV	380	170	6500	32x6	32x6D
Indiana 170	17000	3160	Con	H	6	4½x4¾	380.9	40.8	89@2400	C	G & O	Br-L	Spic	Ross	Str	P	Aut	Br-L	4	Wis	2 K	46.6	L4IHV	380	170	7100	32x6	32x6D
Indiana 175	17500	3460	Con	H	6	4⅝x4¾	427.5	45.9	100@2400	C	G & O	——	Spic	Ross	Str	P	Aut	—	5	Wis	2 R	45.3	L4IHV	380	170	7200	34x7	34x7D
Indiana 195	19500	3820	Con	H	8	4¼x4¾	380.9	40.8	89@2400	C	G & O	Br-L	Spic	Ross	Str	P	Aut	Br-L	4	Wis	2 R	49.5	L4IHV	471	170	8100	34x7	34x7D
Indiana 220	22000	4560	Con	H	8	4⅜x4¾	427.5	45.9	100@2400	C	G & O	Br-L	Spic	Ross	Str	P	Aut	Br-L	4	Wis	2 R	50.7	L4IHV	546	170	8400	36x8	36x8D
Indiana 250	25000	5950	Con	H	8	4⅜x4¾	427.5	45.9	100@2400	C	Long	Br-L	Spic	Ross	Str	P	Aut	Br-L	4	Tim	Wo	63.7	LT4IHV	664	182	10000	40x8	40x8D
Indiana 290	30000	7250	Con	L	6	4⅜x5⅝	611.4	54.1	116@1800	C	Long	Br-L	Spic	Ross	Str	P	L-N	Br-L	7	Tim	Wo	95.0	T4IA	676	182	10750	38x7P	40x14S
*Indiana 640	40000	9700	Con	L	6	4⅜x5⅝	611.4	54.1	116@1800	C	Long	Br-L	Spic	Ross	Str	P	L-N	Br-L	7	Tim	Wo	90.9	T4IA	864	212	14000	38x7P	38x10S
International A 2	1½	675	Wak	L	4	3⅜x4½	186.0	21.0	39@2400	G	Mod	Mec	Mec	Ross	Zen	Vac	DR	W-G	4	Own	Sp	39.5	BE4IM	212	136	*2935	5.50x20	6.00x20
International B 2	1½	725	Wak	L	4	3⅜x4½	186.0	21.0	39@2400	G	Mod	Mec	Mec	Ross	Zen	Vac	DR	Mec	3	Own	Sp	47.3	BE4IM	212	136	2960	5.50x20	6.00x20
International A L 3	1½	1450	Lyc	L	8	3¼x4½	224.0	25.3	52@2700	G	Mod	Own	Mec	Ross	Zen	Vac	DR	W-G	4	Own	Sp	42.9	B4IM	295	138	4032	20x6.00	20x6.00D
International A 4	2	1860	Own	H	6	3⅝x4½	279.0	31.5	67@2600	G	Mod	Own	Mec	Ross	Zen	Vac	DR	Own	5	Own	Sp	47.8	BE4IM	378	145	5221	32x6	32x6D
International A 5	3	2550	Own	H	6	3⅝x4½	279.0	31.5	67@2600	G	Mod	Own	Mec	Ross	Zen	Vac	DR	Own	5	Own	Sp	52.6	BE4IM	430	156	5895	34x7	34x7D
International A 6	3	2675	Own	H	6	3⅝x4½	279.0	31.5	67@2600	G	Mod	Own	Mec	Ross	Zen	Vac	DR	Own	5	Own	Sp	62.5	BE4IM	430	156	6120	34x7	34x7D
International W 1	2½	3850	Hall	H	4	4¼x5½	312.0	28.9	59@2000	C	Own	Own	Own	Own	Zen	Vac	RB	Own	5	Own	2 R	60.5	BE4IM	710	148	8300	36x8S	36x8S
International W 3	3½	4850	Hall	H	4	4⅝x5½	390.0	36.1	69@2000	C	Own	Own	Own	Own	Zen	Vac	RB	Own	5	Own	2 R	70.5	BE4IM	794	160	10125	36x8S	40x12S
La France Rep. A 1	6000	795	Lyc	L	6	3 x4¾	201.5	21.5	60@2500	G	G & O	Borg	Spic	Han	Zen	Vac	Aut	Ful	4	Tim	Sp	36.1	L4IH	378	132	3000	20x5.50	32x6
La France Rep. C 1	7500	1295	Lyc	L	6	3¼x4½	224.0	25.4	61@2750	G	G & O	Eorg	Spic	Han	Zen	Vac	Aut	Ful	4	Tim	Sp	29.1	L4IH	413	144	3300	20x6.00	32x6
La France Rep. D 1	9000	1595	Lyc	L	6	3¼x4½	224.0	25.4	61@2750	G	G & O	Borg	Spic	Han	Zen	Vac	Aut	Ful	4	Tim	Sp	37.9	L4IH	448	144	3725	30x5	30x5D
LaFranceRep. E-1	13000	1945	Bud	L	6	3½x4½	260	29.5	69@2600	G	Per	Borg	Spic	Han	Zen	Vac	Aut	Ful	4	Tim	Sp	40.1	L4IHV	536	150	5000	20x7.50	20x7.50D
La France Rep. F-3	13000	2395	Lyc	L	6	3¾x4½	299.0	33.7	80@2500	G	Per	Ful	Spic	Han	Zen	P	Aut	Ful	4	Tim	Sp	40 1	L4IHV	628	174	5520	34x7	34x7
La France Rep. H 2	16000	2985	Lyc	L	6	3⅞x5	354.0	36.0	85@2300	G	Per	Ful	Spic	Han	Zen	P	Aut	Ful	4	Wis	2 R	41.6	L4IHV	658	174	6370	34x7	34x7D
La France Rep. M 2	20000	4000	Wak	L	6	4⅜x5½	462.0	46.0	97@2000	G	Per	Ful	Spic	Han	Zen	P	Aut	Ful	5	Wis	2 R	48.1	L4IHV	768	174	7500	36x8	36x8D
La France Rep 35-2	24000	5600	Wak	L	6	4½x5¾	549.0	48.6	98@1850	G	Own	Ful	Spic	Han	Zen	P	Aut	Ful	4	Wis	2 R	45.4	L4IHV	870	174	8250	38x9	38x9D
Maccar 38 A	1½	1900	Bud	L	6	3¾x4½	298.0	33.7	83@2800	G	Per	Br-L	Spic	Ross	Str	P	DR	Br-L	4	Tim	Sp	30.6	L4IH	315	171	4850	32x6	32x6D
Maccar 40 A	2	2400	Bud	L	6	3¾x4½	298.0	33.7	83@2800	G	Per	Br-L	Spic	Ross	Str	P	DR	Br-L	4	Tim	Sp	38.8	L4IHV	325	171	5340	32x6	32x6D
Maccar 56	3	3350	Bud	L	6	3¾x5	311.0	33.7	72@2100	G	Per	Br-L	Spic	Ross	Str	Vac	DR	Br-L	4	Wis	2 R	37.4	L4IHV	411	183	6200	34x7	34x7D
Maccar 60	3	3950	Bud	L	6	4½x5½	411.0	40.8	103@2100	G	Per	Br-L	Spic	Ross	Str	Vac	DR	Br-L	4	Tim	Wo	34.3	L4IHV	411	183	6600	20x9 00	20x9.00D
Maccar 66 A	4	5500	Her	L	6	4⅝x4¾	479.0	51.3	106@2100	G	Per	Br-L	Spic	Ross	Zen	Vac	DR	Br-L	7	Tim	Wo	64.5	W4IA	617.5	206	8200	20x9.75	20x9 75D
Maccar 86 A	5	5950	Her	L	6	4⅝x4¾	479.0	51.3	106@2100	G	Per	Br-L	Spic	Ross	Zen	Vac	DR	Br-L	7	Tim	Wo	72.3	W4IA	623	206	9500	20x10.50	20x10.50D
†Maccar SW-86	10	8250	Her	L	6	4⅝x5¼	529.0	51.3	124@2200	G	Per	Br-L	Spic	Ross	Zen	Vac	DR	Br-L	5	Tim	Wo	72.3	T6IA	103	208	11700	20x10.50	20x10.50D
††Mack B L	——	2500	Own	L	6	3¼x5	248.9	25.3	63@2800	G	Own	Own	Spic	Gem	Str	Vac	NE	Own	4	Tim	Sp	Opt	L4IH	302	148	*4450	20x6.00B	20x6.00DB
††Mack B G	——	3000	Own	L	6	3⅜x5	309.6	31.5	75@2600	G	Own	Own	Spic	Own	Str	Vac	NE	Own	4	Own	Sp	Opt	O4IV	415	156	5200	32x6	32x6D
††Mack A B	——	4350	Own	L	4	4¼x5	283.7	28.9	60@2200	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	2 R	Opt	O4IV	471	146½	7100	34x7	34x7D
Mack A B	——	4000	Own	L	4	4¼x5	283.7	28.9	60@2200	G	Own	Own	Spic	Own	Str	Vac	NE	Own	4	Own	Ch	Opt	O4IV	471	146½	6850	34x7	34x7D
Mack A B	——	4500	Own	L	6	3⅝x5	309.6	31.5	75@2600	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	2 R	Opt	O4IV	471	146½	7050	34x7	34x7D
††Mack A B	——	4150	Own	L	6	3⅝x5	309.6	31.5	75@2600	G	Own	Own	Spic	Own	Str	Vac	NE	Own	4	Own	Ch	Opt	O4IV	471	146½	6850	34x7	34x7D
††Mack B C	——	5250	Own	L	6	4 x5½	417.7	38.4	100@2300	G	Own	Own	Spic	Own	Str	Vac	NE	Own	4	Own	2 R	Opt	O4IV	471	154	8350	36x8	36x8D
††Mack B C	——	5500	Own	L	6	4 x5½	417.7	38.4	100@2300	G	Own	Own	Spic	Own	Str	Vac	NE	Own	4	Own	Ch	Opt	O4IV	610	154	8500	36x8	36x8D
††Mack B J	——	6150	Own	L	6	4½x5½	525.2	48.6	126@2200	G	Own	Own	Spic	Own	Str	Vac	L-N	Own	4	Own	2 R	Opt	O4IV	567	168½	10100	36x8	36x8D
††Mack A K	——	5150	Own	L	4	5 x6	471.2	40.0	77@1800	G	Own	Own	Spic	Own	Str	Gra	RB	Own	4	Own	Ch	Opt	O4IV	492	162	9800	36x5S	36x5DS
††Mack A K	——	5250	Own	L	4	5 x6	471.2	40.0	77@1800	G	Own	Own	Spic	Own	Str	Gra	RB	Own	4	Own	2 R	Opt	O4IV	492	162	9700	36x5S	36x5DS
††Mack A C	——	4950	Own	L	4	5 x6	471.2	40.0	77@1800	G	Own	Own	Spic	Own	Str	Gra	RB	Own	4	Own	Ch	Opt	OJXM	194	156	9500	36x5S	40x5DS
††Mack A K	——	6450	Own	L	6	4½x5½	525.5	48.6	126@2200	G	Own	Own	Spic	Han	Str	Vac	L-N	Own	4	Own	2 R	Opt	O4IV	492	174	10950	22x10.50B	22x10.50DS
††Mack A C	——	5500	Own	L	4	5 x6	471.2	40.0	77@1800	G	Own	Own	Spic	Own	Str	Gra	RB	Own	4	Own	Ch	Opt	OJXM	194	156	10100	36x6S	40x6DS
††Mack A C	——	6550	Own	L	6	4½x5½	525.5	48.6	126@2200	G	Own	Own	Spic	Han	Str	Vac	L-N	Own	4	Own	Ch	Opt	O4IV	492	174	11950	24x10.50B	24x10.50DB
††Mack A C	——	6000	Own	L	4	5 x6	471.2	40.0	77@1800	G	Own	Own	Spic	Own	Str	Gra	RB	Own	4	Own	Ch	Opt	OJXM	194	156	10450	36x7S	40x7DS
††Mack A P	——	9500	Own	L	6	5 x6	706.5	60.0	150@2000	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	Ch	Opt	02IV	287	191	12200	36x7S	40x8DS
††Mack A K 6—6 wheel	——	9500	Own	L	8	4½x5½	525.2	48.6	126@2200	G	Own	Own	Spic	Own	Str	Vac	L-N	Own	4	Own	2 R	Opt	ONIA	574	152-52	16300	9.75x22B	5.75x22DB
††Mack A C 6 wheel	——	7650	Own	L	4	5 x6	471.2	40.0	77@1800	G	Own	Own	Spic	Own	Str	Gra	RB	Own	4	Own	Ch	Opt	ORIV	574	125-52	13800	36x6S	40x12S
††Mack A C 6—6 wheel	——	9000	Own	L	6	4½x5½	525.2	48.6	126@2200	G	Own	Own	Spic	Own	Str	Vac	L-N	Own	4	Owr	Ch	Opt	O6IA	574	145-52	14950	40x8	40x8D
Mack A P 6 wheel	——	11500	Own	L	6	5 x6	706.5	60.0	150@2000	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	Ch	Opt	O6IA	574	145-52	15250	40x8	40x8D
††Mack A P 6 wheel	——	12000	Own	L	6	5 x6	706.5	60.0	150@2000	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	2 R	Opt	O6IA	574	145-52	——	22x9.75B	22x9.75B
Paige	1 ½	*895	Own	L	6	3½x4½	207.0	23.4	66@3200	C	Long	Long	Un	Ross	DL	F	DR	—	3	——	Sp	14.2	4HI	264	115	†2350	18x5.50B	18x5.50B
Pierce-Arrow P T	12000	2950	Own	L	6	3¾x4½	298.0	33.5	70@2600	G	Long	Long	Cle	Han	Zen	P	DR	Cla	4	Tim	Sp	——	B4IMV	388	160	*5600	20x7.50B	20x7.50B
Pierce-Arrow P W	18000	4150	Own	L	6	4⅛x4½	361.0	40.3	77@2400	G	Long	Long	Cle	Han	Zen	P	DR	Cov	4	Tim	*Wo	——	W4IA	488	150	6660	20x9.00B	20x9.00B
Pierce-Arrow P X	24000	5375	Own	L	6	4⅝x4¾	479.0	51.3	103@2200	G	Long	Long	Cle	Han	Zen	P	DR	Cov	4	Tim	*Wo	——	W4IA	610	160	9300	20x10.50B	20x10.50B
Pierce-Arrow P Y	28000	5950	Own	L	6	4⅝x4¾	479.0	51.3	103@2200	G	Long	Long	Cle	Han	Zen	P	DR	Cov	4	Own	*Wo	——	W4IA	701	160	10675	24x10.50B	24x10.50B
Pierce-Arrow P Z	34000	6950	Own	L	6	4¾x5¾	611.0	54.1	130@2000	G	Long	Long	Cle	Han	Zen	P	DR	Own	4	Own	*Wo	——	W4IA	702	168	12800	36x7B	40x16B
Relay Series 15 AA	¾	1370	Con	L	6	3⅜x4	214.7	27.3	52@2200	C	Long	Borg	Blo	Han	Str	Vac	Aut	W-G	4	Own	2R	38.4	L4IH	297	131	3750	30x5P	30x5P
Relay Series 15 AB	1	1400	Con	L	6	3⅜x4	214.7	27.3	52@2200	C	Long	Borg	Blo	Han	Str	Vac	Aut	W-G	4	Own	2R	38.4	L4IH	297	131	3800	30x5P	30x5P
Relay Series S 11	1	1700	Bud	L	6	3⅜x4½	241.6	27.3	53@2200	G	Long	Br-L	Blo	Han	Zen	Vac	Aut	Br-L	4	Own	2R	25.8	L4IH	297	142	4050	30x5P	30x5P
Relay Series S 11	1½	1900	Bud	L	6	3⅜x4½	241.6	27.3	53@2200	G	Long	Br-L	Blo	Han	Zen	Vac	Aut	Br-L	4	Own	2R	30.0	L4IH	297	162	4500	30x5P	30x5DP
Relay 40 CA	1½	3040	Bud	L	6	3¾x5	331.0	33.7	64@2100	G	Long	Ful	Blo	Han	Zen	Vac	Aut	Ful	4	Own	2 R	41.8	L4IH	394	168	5550	34x5P	34x5DP
Relay 40 CB	2	3290	Bud	L	6	3¾x5	331.0	33.7	64@2100	G	Long	Ful	Blo	Han	Zen	Vac	Aut	Ful	4	Own	2 R	41.8	L4IH	394	168	5750	36x6P	36x6DP
Relay Series 50	2	3360	Bud	L	6	3¾x5	331.0	33.7	64@2100	G	Long	Br-L	Blo	Han	Zen	Vac	Aut	Br-L	5	Own	2R	58.5	L4IH	584	161	6800	36x6	36x6D
Relay Series S 11	2	2039	Bud	L	6	3⅜x4½	241.6	27.3	53@2200	G	Long	Br-L	Blo	Han	Zen	Vac	Aut	Br-L	4	Own	2R	30 0	L4IH	297	162	4700	32x6P	32x6DP
Relay 40 CC	2½	3326	Bud	L	6	3¾x5	331.0	33.7	64@2100	G	Long	Ful	Blo	Han	Zen	Vac	Aut	Ful	4	Own	2 R	41.8	L4IH	394	168	5950	36x6P	36x6DP
Relay Series 50	2½	4000	Bud	L	6	3¾x5	331.0	33.7	64@2100	G	Long	Br-L	Blo	Han	Zen	Vac	Aut	Br-L	5	Own	2R	58.5	L4IH	584	161	7000	36x6	38x7D
Relay Series 60	2½	4555	Bud	L	6	4⅛x5½	410.9	40.8	83@2100	G	Long	Ful	Blo	Han	Zen	Vac	Aut	Ful	5	Own	2R	58.5	L4IH	884	175	7350	36x6	36x6D
Relay Series 50	3	4130	Bud	L	6	3¾x5	330.0	33.7	64@2100	G	Long	Br-L	Blo	Han	Zen	Vac	Aut	Br-L	5	Own	2R	58.5	L4IH	584	161	7200	36x6	40x8D
Relay Series 60	3	4595	Bud	L	6	4½x5½	410.9	40.8	83@2100	G	Long	Ful	Blo	Han	Zen	Vac	Aut	Ful	5	Own	2R	58.5	L4IH	584	175	7500	36x6	38x7D
Relay Series 80	3	5330	Bud	L	6	4½x5½	411.0	40.8	83@2100	G	Long	Borg	Blo	Ross	Zen	Vac	Aut	Cov	5	Own	2R	84.1	L4IH	—	175	8400	36x6	40x10S
Relay Series 60	3½	4745	Bud	L	6	4½x5½	410.9	40.8	83@2100	G	Long	Ful	Blo	Han	Zen	Vac	Aut	Ful	5	Own	2R	58.5	L4IH	584	175	7800	38x7	40x8D
Relay Series 80	3½	5330	Bud	L	6	4½x5½	411.0	40.8	83@2100	G	Long	Borg	Blo	Ross	Zen	Vac	Aut	Cov	5	Own	2R	84.1	L4IH	—	175	8600	36x6	40x12S
Relay Series 80	4	5280	Bud	L	6	4½x5½	411.0	40.8	83@2100	G	Long	Borg	Blo	Ross	Zen	Vac	Aut	Cov	5	Own	2R	84.1	L4IH	—	175	8800	38x7	40x14S
Relay Series 100	5	6615	Con	L	6

Major Specifications and Mechanical Details of 1931 Commercial Cars

(CONTINUED FROM PAGE SIX)

Make and Model	Capacity—Tons or Lbs.	Chassis Price	Engine	Valve Arr'g'm't	No. of Cyls.	Bore and Stroke	Piston Disp.	Tax H. P.	Max. Brake H. P. and Peak R. P. M.	Type Camshaft Drive	Radiator Make	Clutch Make	Universals Make	Steering Gear Make	Carburetor Make	Fuel Feed Type	Make Electr'l System	Make Transmission	No. Spds. For.	Rear Axle Make	Type Final Drive	Final Gear Reduction	Type Service Brakes	Area Service Brakes	Standard Wheel Base	Chassis Wgt.	Standard Tire Sizes Front	Rear
Selden 67 C	5	4975	Con	H	6	4⅜x4¾	427.0	45.9	100@2400	C	Own	Br-L	Spic	Ross	Str	Vac	Aut	Br-L	7	Wis	2R	——	L4IHVA	—	171	8700	36x8	36x8D
Selden 77	7	7365	Con	L	6	4¼x5¾	611.0	54.1	127@2300	G	Own	Br-L	Spic	Ross	Str	Vac	Aut	Br-L	7	Wis	2R	——	BW41M	—	178	11600	40x8	42x9D
Service Series S 11	1	1600	Bud	L	6	3⅜x4½	241.6	27.3	53@2200	G	Long	Br-L	Blo	Han	Zen	Vac	Aut	Br-L	4	Col	Sp	25.5	——	—	142	3900	30x5P	30x5P
Service Series S 11	1½	1900	Bud	L	6	3⅜x4½	241.6	27.3	53@2200	G	Long	Br-L	Blo	Han	Zen	Vac	Aut	Br-L	4	Tim	Sp	29.2	L4IH	297	162	4300	30x5P	30x5DF
Service Series 40	1½	2990	Bud	L	6	3¾x5	331.0	33.7	64@2100	G	Long	Ful	Blo	Han	Zen	Vac	Aut	Ful	4	Tim	Wo	34.8	L4IH	394	168	4700	34x5P	34x5DF
Service Series S 11	2	2030	Bud	L	6	3⅜x4½	241.6	27.3	53@2200	G	Long	Br-L	Blo	Han	Zen	Vac	Aut	Br-L	4	Tim	Sp	29.2	L4IH	297	162	4500	32x6	32x6D
Service Series 40	2	3240	Bud	L	6	3¾x5	331.0	33.7	64@2100	G	Long	Ful	Blo	Han	Zen	Vac	Aut	Ful	4	Tim	Wo	34.8	L4IH	394	168	4900	36x6	36x6D
Service Series 40	2½	3240	Bud	L	6	3¾x5	331.0	33.7	64@2100	G	Long	Ful	Blo	Han	Zen	Vac	Aut	Ful	4	Tim	Wo	34.8	L4IH	394	168	5100	36x6P	36x6D
Service Series 60	2½	4580	Bud	L	6	4½x5½	410.9	40.8	83@2100	G	Long	Ful	Blo	Han	Zen	Vac	Aut	Ful	5	Tim	Wo	63.0	L4IH	584	175	7000	36x6	36x6D
Service Series 60	3	4050	Bud	L	6	4½x5½	410.9	40.8	83@2100	G	Long	Ful	Blo	Han	Zen	Vac	Aut	Ful	5	Tim	Wo	63.0	——	—	175	7100	36x6	38x7D
Service Series 80	3½	5250	Bud	L	6	4½x5½	411.0	40.8	83@2100	G	Long	Borg	Blo	Ross	Zen	Vac	Aut	Br-L	7	Tim	Wo	98.2	——	—	175	8200	36x6S	36x12S
Service Series 80	4	5330	Bud	L	6	4½x5½	411.0	40.8	83@2100	G	Long	Own	Blo	Ross	Zen	Vac	Aut	Br-L	7	Tim	We	98.2	——	—	175	8400	36x6S	36x14S
Service Series 100	5	5830	Bud	L	6	4½x5½	410.9	40.8	83@2100	G	Long	Own	Blo	Ross	Zen	Vac	Aut	Br-L	7	Tim	Wo	95.0	——	793	175	9600	36x6S	40x14S
Stewart 30	1	695	Lyc	L	4	3¾x4½	199.0	22.5	50@2600	G	Fed	Borg	Spic	Ross	Str	P	DR	W-G	4	Sal	Sp	25.1	B4IM	..	130	*3158	20x6.50	20x6.50
Stewart 30X	1	795	Lyc	L	6	3 x4¾	185.0	23.8	60@2800	G	Fed	Borg	Spic	Ross	Str	P	DR	W-G	4	Sal	Sp	25.1	B4IM	..	130	3199	20x6.50	20x6.50
Stewart 40	1½	895	Lyc	L	4	3¾x4½	199.0	22.5	50@2600	G	Fed	Borg	Spic	Ross	Str	P	DR	W-G	4	Cla	Sp	25.1	B4IM	..	130	3531	20x6.50	20x6.50D
Stewart 40 X	1½	995	Lyc	L	6	3 x4½	261.5	23.8	60@2800	G	Fed	Borg	Spic	Ross	Str	P	DR	W-G	4	Sal	Sp	25.1	B4IM	..	130	3574	20x6.50	20x6.50D
Stewart 34 X	2½	1195	Lyc	L	6	3½x4½	224.0	25.3	61@2600	G	Own	Borg	Spic	Ross	Str	P	DR	W-G	4	Cla	Sp	25.1	B4IM	..	145	3891	20x6.50	20x6.50D
Stewart 28 X	2	1495	Lyc	L	6	3½x4½	224.0	25.3	61@2600	G	Own	Ful	Spic	Ross	Str	P	DR	Ful	4	Cla	Sp	44.1	B4IM	..	136	4239	20x6.50	20x6.50D
Stewart 29 X S	2	1695	Lyc	L	8	3⅝x4½	278.0	31.5	85@2750	G	Own	Ful	Spic	Ross	Str	P	DR	Ful	4	Cla	Sp	44.1	B4IM	..	145	5194	32x6	32x6D
*Stewart 18 X	2½	2090	Lyc	L	6	3⅞x5	310.0	36	85@2750	G	Own	Ful	Spic	Ross	Str	P	DR	Ful	4	Tim	Wo	48.1	B4IM	..	165	6245	32x6	32x6D
Stewart 32 X	2½	1990	Lyc	L	6	3⅝x4½	278.0	31.5	80@2500	G	Mod	Ful	Spic	Ross	Str	P	DR	Ful	4	Cla	Sp	46.1	B4IM	..	165	5552	32x6	32x6D
Stewart 35 X	3	2590	Lyc	L	6	3¾x4½	299.0	33.8	85@2750	G	Fed	Ful	Spic	Ross	Str	P	DR	Ful	4	Cla	Sp	46.1	B4IM	..	165	6224	36x8.25B	20x8.25D
Stewart 36 X	4	2990	Lyc	L	6	3⅞x5	354.0	36.2	90@2750	G	Fed	Borg	Spic	Ross	Str	P	DR	Br-L	4	Tim	Wo	105.1	B4IM	..	165	6884	20x8.25	20x8.25D
Stewart 48-8	3	2990	Lyc	L	8	3¾x4¾	420.0	130.0	45@2800	G	Fed	Br-L	Spic	Ross	Str	P	DR	Br-L	4	Cla	Sp	46.1	B4MV	..	170	6750	8.25x20B	8.25x20DB
Stewart 19 X	3½	3690	Lyc	L	6	3⅞x5	354.0	36.2	90@2750	G	Mod	Ful	Spic	Ross	Str	P	DR	Ful	12	Tim	Wo	105.1	B4IM	..	165	7474	34x7	34x7D
Stewart 38-8	3½	3990	Lyc	L	8	3¾x4¾	462.0	44.4	130@2800	G	Fed	Borg	Spic	Ross	Str	P	DR	Br-L	12	Tim	2R	105.1	B4IMV	..	170	7984	20x9.00	20x9.00D
Stewart 38-6	3½	3990	Wak	L	6	4⅜x5½	420.0	45.9	100@2000	G	Fed	Borg	Spic	Ross	Str	P	DR	Br-L	12	Tim	2R	105.1	B4IMV	..	170	7964	20x9.00	20x9.00D
Stewart 31 X	4	4990	Wak	L	6	4⅜x5½	516	51.2	105@2000	G	Mod	BR-L	Spic	Ross	Str	P	DR	BR-L	12	Tim	Wo	105.1	B4IMV	..	165	9885	36x8S	36x8SD
Stewart 27 XS	7	6190	Wak	L	6	4⅜x5½	516	51.2	105@2000	G	Own	BR-L	Spic	Ross	Str	P	DR	BR-L	12	Tim	Wo	105.1	B4IMV	..	165	10762	36x7	24x10.50D
Studebaker S-1	½	595	Own	L	6	3⅝x4½	221.0	27.3	70@3200	C	McC	Long	Scic	Ross	Str	P	DR	W-G	3	Own	Sp	16.4	B41M	148	114	—	19x5.25	19x5.25
Studebaker S-20	1½	695	Own	L	6	3¼x4½	205.0	25.4	70@3200	C	McC	Long	Spic	Ross	Str	P	DR	W-G	4	Cla	Sp	36.2	B41M	224	130	2965	20x6.00	32x6
Studebaker S-30	1½	775	Own	L	6	3¼x4½	205.0	25.4	70@3200	C	McC	Long	Spic	Ross	Str	P	DR	W-G	4	Cla	Sp	36.2	B41M	224	160	3130	20x6.00	32x6
Studebaker S-40	2	895	Own	L	6	3¼x4½	205.0	25.4	70@3200	C	McC	Long	Cle	Ross	Str	P	DR	W-G	4	Tim	Sp	43.5	B41M	276	136	3705	20x6.50	20x6.50D
Studebaker S-50	2	920	Own	L	6	3¼x4½	205.0	25.4	70@3200	C	McC	Long	Cle	Ross	Str	P	DR	W-G	4	Tim	Sp	43.5	B41M	276	146	3835	20x6.50	20x6.50D
Studebaker S-60	2	945	Own	L	6	3¼x4½	205.0	25.4	70@3200	C	McC	Long	Cle	Ross	Str	P	DR	W-G	4	Tim	Sp	43.5	B41M	276	160	3890	20x6.50	20x6.50D
Studebaker 55	——	3295	Own	L	8	3½x4⅜	337.0	39.2	115@3200	G	Long	Long	Spic	Ross	Str	P	DR	Ful	4	Eat	Sp	24.6	B4IMV	444	184	5413	20x7.50	20x7.50D
Studebaker 99	——	3795	Own	L	8	3½x4⅜	337.0	39.2	115@3200	G	Long	Long	Spic	Ross	Str	P	DR	Ful	4	Eat	Sp	24.6	B4IMV	505	184	5680	20x7.50	20x7.50D
White 15B	*7,500	1545	Own	L	4	3¾x5½	226.4	22.5	31@1600	G	Own	Own	Spic	Own	Zen	Vac	L-N	Own	4	Own	Sp	18.6	O2XM	226	133½	3402	30x5	30x5
White 160	*8,000	1700	Own	L	4	4 x5¾	289.0	25.6	45@1800	G	—	Own	Mec	Han	Zen	Vac	DR	Own	4	Own	Sp	19.5	L4IH	276	138	4625	30x5	30x5
White 60	*8,000	1850	Own	L	6	3½x4½	260.0	29.4	54@2100	C	Own	Own	Mec	Han	Zen	Vac	DR	Own	3	Own	Sp	17.8	L4IH	276	138	3739	30x5	30x5D
White 161	*9,000	1850	Own	L	4	4 x5¾	289.0	25.6	45@1800	G	—	Own	Mec	Han	Zen	Vac	DR	Own	4	Own	Sp	19.5	L4IH	276	138	4290	34x7	34x7
White 162	*10,000	1900	Own	L	4	4 x5¾	289.0	25.6	45@1800	G	—	Own	Mec	Han	Zen	Vac	DR	Own	4	Own	Sp	19.5	L4IH	276	138	4360	30x5	30x5D
White 210	*10,000	2300	Own	L	4	4 x5¾	289.0	25.6	45@1800	G	—	Own	Spic	Han	Zen	Vac	DR	Own	4	Own	Sp	22.4	L4IH	349	148	4875	30x5	30x5D
White 61	*10,500	2450	Own	L	6	3¾x4½	299.0	33.7	61@2100	C	Own	Own	Spic	Han	Zen	Vac	DR	Own	4	Own	Sp	33.4	L4IH	349	148	4789	30x5	30x5D
White 611	*11,500	2550	Own	L	6	3¾x4½	299.0	33.7	61@2100	C	—	Own	—	Han	Zen	Vac	DR	Own	4	Own	Sp	23.4	L4IH	349	148	4980	20x7.50B	20x7.50DB
White 211	*11,500	2425	Own	L	4	4 x5¾	289.0	25.6	45@1800	G	—	Own	Spic	Han	Zen	Vac	DR	Own	4	Own	Sp	23.4	L4IH	349	148	5110	32x6	32x6D
White 212	*13,000	2700	Own	L	4	4 x5¾	289.0	25.6	45@1800	G	—	Own	Spic	Han	Zen	Vac	DR	Own	4	Own	Sp	23.4	L4IH	349	148	5230	34x7	34x7D
White 56	*13,000	3125	Own	L	4	4 x5¾	289.0	25.6	45@1600	G	Own	Own	Spic	Own	Zen	Vac	Eis	Own	4	Own	Sp	26.2	O2IM	268	165	5270	36x4	36x7
White 612	*13,000	2800	Own	L	6	3¾x4½	299.0	33.7	61@2100	C	—	Own	—	Han	Zen	Vac	DR	Own	4	Own	Sp	23.4	L4IH	349	148	5100	20x7.50B	20x7.50DB
White 620	*15,000	4350	Own	H	6	4 x5¼	396.0	38.4	72@1800	C	Own	Own	Spic	Ross	Zen	P	DR	Own	4	Own	Sp	41.8	O14IHV	—	157	7300	20x8.25B	20x8.25DB
White 51A	*17,000	3750	Own	L	4	4¼x5¾	326.0	28.9	54@1600	G	Own	Own	Spic	Own	Zen	Vac	Eis	Own	4	Own	Sp	35.6	O2IM	335	170	6438	36x5	36x8
White 51AT	*17,000	3875	Own	L	4	4¼x5¾	326.0	28.9	54@1600	G	Own	Own	Spic	Own	Zen	Vac	Eis	Own	4	Own	Sp	46.6	O2IM	335	134	6227	36x5	36x8
White 621	*18,000	4650	Own	H	6	4 x5¼	396.0	38.4	72@1800	C	Own	Own	Spic	Ross	Zen	P	DR	Own	4	Own	Sp	41.4	O14IHV	—	157	7700	20x9.00B	20x9.00DB
White 640	*20,000	6100	Own	H	6	4⅜x5¾	519.0	45.9	96@1800	C	Own	Own	Spic	Ross	Zen	P	L-N	Own	4	Own	Sp	37.9	O4IA	—	180	9290	20x9.00B	20x9.00DB
White 630	*20,000	5060	Own	H	6	4 x5¾	396.0	38.4	72@1800	C	—	Own	Spic	Ross	Zen	P	DR	Own	4	Own	Sp	41.4	O4IHV	554	168	8500	20x9.00B	20x9.00DB
White 55	*21,500	4650	Own	L	4	4¼x5¾	326.0	28.9	54@1600	G	Own	Own	Spic	Own	Zen	Vac	Eis	Own	4	Own	2R	66.1	OPXM	224	174	8737	36x5	40x5D
White 58	*22,000	4400	Own	L	4	4¼x5¾	326.0	28.9	54@1600	G	Own	Own	Spic	Own	Zen	Vac	Eis	Own	4	Own	2R	49.7	OPXM	224	180	7797	36x5	36x5D
White 641	*24,000	5450	Own	H	6	4⅜x5¾	519.0	45.9	96@1800	C	Own	Own	Spic	Ross	Zen	P	L-N	Own	4	Own	2R	46.9	O4IA	—	180	9700	20.9.75B	20x9.75DB
*White 630 SW200	*24,000	6280	Own	H	6	4 x5¼	396.0	38.4	72@1800	C	—	Own	Spic	Ross	Zen	P	DR	Own	4	Tim	Wo	44.2	OT1HV	—	193	10000	20x8.25B	20x8.25DB
White 631	*24,000	5750	Own	H	6	4 x5¼	396.0	38.4	72@1800	C	Own	Own	Spic	Ross	Zen	P	DR	Own	4	Own	2R	56.9	O14HV	—	168	8000	20x9.25B	20x9.25DB
White 52	*28,000	5100	Own	L	4	4¼x5¾	326.0	28.9	54@1600	G	Own	Own	Spic	Own	Zen	Vac	Eis	Own	4	Own	2R	53.4	OPXM	224	174	9409	36x6	40x12
White 52T	*28,000	4700	Own	L	4	4¼x5¾	326.0	28.9	54@1600	G	Own	Own	Spic	Own	Zen	Vac	Eis	Own	4	Own	2R	76.5	OPXM	224	129½	8461	36x5	40x5D
White 643	*32,000	6950	Own	H	6	4⅜x5¾	519.0	45.9	96@1800	C	Own	Own	Spic	Ross	Zen	P	L-N	Own	4	Own	2R	66.3	O4IA	—	180	10900	24x10.50B	24x10.50DB
*White 642 SW310	*34,000	8045	Own	H	6	4⅜x5¾	519.0	45.9	96@1800	C	—	Own	Spic	Ross	Zen	P	L-N	Own	4	Tim	Wo	56.6	OT1HV	—	193	12670	20x9.00B	20.9.00DB
White 642	*34,000	6750	Own	H	6	4⅜x5¾	519.0	45.9	96@1800	C	Own	Own	Spic	Ross	Zen	P	L-N	Own	4	Own	2R	66.5	O4IA	—	180	10600	24x9.75B	24x9.75DB
*White 643 SW410	*40,000	8570	Own	H	6	4⅜x5¾	519.0	45.9	96@1800	C	—	Own	Spic	Ross	Zen	P	L-N	Own	4	Tim	Wo	79.9	OT1HV	—	193	14400	40x8	40x8D
**White 60K	——	2200	Own	L	6	3½x4½	260.0	29.4	54@2100	C	—	Own	Mec	Han	Zen	Vac	DR	Own	3	Own	Sp	17.6	L4IH	276	112	3798	20x7.00B	20x7.00B
White 601	——	1900	Own	L	6	3½x4½	260.0	29.4	54@2100	C	—	Own	Mec	Han	Zen	Vac	DR	Own	4	Own	Sp	19.5	L4IH	276	138	3825	20x7.00B	20x7.00B
White 602	——	2050	Own	L	6	3½x4½	260.0	29.4	50@1800	C	—	Own	Mec	Han	Zen	Vac	DR	Own	4	Own	Sp	19.5	L4IH	276	138	4125	20x7.50B	20x7.50B
Willys 6-C-113	½	395	Own	L	6	3¼x3⅞	193.0	25.3	65@3400	C	Fed	Borg	Spic	Own	Til	P	Aut	Own	3	Own	Sp	12.4	B4IM	143	113	1923	19x5.00	19x5.00
Willys 6-C-131	1½	595	Own	L	6	3¼x3⅞	193.0	25.3	65@3400	C	Fed	Borg	Spic	Own	Til	P	Aut	W-G	4	Cla	Sp	40.8	B4IM	235	131	2625	20x5.50	32x6
Willys 6-C-157	1½	630	Own	L	6	3¼x3⅞	193.0	25.3	65@3400	C	Fed	Borg	Spic	Own	Til	P	Aut	W-G	4	Cla	Sp	40.8	B4IM	235	157	2900	20x5.50	22x6

GENERAL NOTATIONS

***†REFERENCE MARKS** apply to individual lines only and explanations are given under the subdivision for each company in the **"SPECIAL NOTATIONS."**

CAPACITIES given in this table are in tons or fractions of tons. *Shows maximum allowable gross weight in pounds.

ENGINE—Bud, Buda; Con, Continental; Her, Hercules; Lyc, Lycoming; Pont, Pontiac; Wak, Waukesha; Wis, Wisconsin; Hall, American Car & Foundry.

VALVE ARRANGEMENT—L, "L" head; H, in head; O, overhead; T, T head; S, sleeve.

TYPE OF CAMSHAFT DRIVE—G, gear; C, chain.

RADIATOR MAKE—G & O, G & O Mfg. Co.; Per, Perfex Corp.; Long, Long Mfg. Co.; Har, Harrison Radiator Corp.; Fed, Fedders Mfg Co.; McC, McCord Radiator & Mfg. Co.; Mod, Modine Mfg. Co.; Hex, Hexcel Radiator Co.

CLUTCH MAKE — Jon, Jones Clutch & Gear Co.; Ful, Fuller & Sons Mfg. Co.; Borg, Borg & Beck Co.; Br-L, Brown Lipe Gear Co.; Rock, Rockford Drill & Machine Co.; Cov, Covert Gear Co.; Long, Long Mfg Co.; Detr, Detroit Gear & Machine Co.; Mer, Merchant & Evans; Hel, Merchants & Evans.

UNIVERSALS MAKE — Spic, Spicer Mfg Co.; Blo, Blood Bros. Machine Co.; Sup, Superior Universal Products; Un, Universal Products Co.; Cle, Cleveland Steel Products Corp.; Pet, Peters; Opt, optional; Mec, Mechanics Machine Co.

STEERING GEAR MAKE—Ross, Ross Gear & Tool Co.; Han, Hannum Mfg. Co.; Sag, Saginaw Steering Gear Co.; Gem, Gemmer Mfg. Co.; Col, Columbus Gear & Pump Co.; W-G, Warner Gear Corp.

CARBURETOR—Car, Carter; Mar, Marvel; Sch, Wheeler-Schebler; Str, Stromberg; DL, Detroit Lubricator; Til, Tillotson; Zen, Zenith-Detroit.

FUEL FEED—Gra, gravity; Vac, vacuum tank; P, fuel pump.

ELECTRICAL SYSTEM — AB, American-Bosch; Aut, Electric Auto-Lite; Eis, Eisemann; L-N, Leece-Neville; NE, North East; RB, Robert Bosch; DR, Delco-Remy.

TRANSMISSION—Br-L, Brown-Lipe; Cov, Covert; Ful, Fuller; Mec, Mechanics Machine; Mun, Muncie; W-G, Warner Gear; Cot, Cotta Gear Co.; Cla, Clark Equipment Co.

REAR AXLE, Cla, Clark Equipment; Col, Columbia; Eat, Eaton; Pont, Pontiac; Sal, Salisbury; Tim, Timken; Wis, Wisconsin.

FINAL DRIVE — IG, internal gear; St, straight bevel; Sp, spiral bevel; Wo, worm; 2R, double reduction; Ch, chain; S-T, semi-transverse.

TYPE OF SERVICE BRAKES—

B4IM, Bendix, 4 wheel, internal mechanical; B6IA, Bendix, 6 wheel, internal air; B4IMV, Bendix, 4 wheel, internal mechanical, vacuum; BrIA, Bendix, operating on 4 rear wheels, internal air; BW4IM, Bendix front, Wisconsin rear, 4 wheel internal, mechanical; BE4IM, Bendix front, Eaton rear, 4 wheel, internal mechanical; BO4IM, Bendix front, own rear, 4 wheel internal mechanical; B4IH, Bendix, 4 wheel, internal hydraulic; B4, Bendix, 4 wheel.

C4IM, Columbia, 4 wheel, internal, mechanical; K2IM, Clark, 2 wheel, internal, mechanical.

L4IHVA, Lockheed, 4 wheel, internal, hydraulic, vacuum, air; LO4ID, Lockheed, own, 4 wheel, internal, drive shaft; LO4IV, Lockheed, own, 4 wheel, internal, vacuum; LT4DV, Lockheed Timkin, 4 wheel, drive shaft, vacuum; L4IH, Lockheed, 4 wheel, internal, hydraulic; L4IHV, Lockheed, 4 wheel, internal hydraulic, vacuum; LT4IVA, Lockheed, Timken, 4 wheel, internal, vacuum, air; L6IHV, Lockheed, 6 wheel, internal, hydraulic, vacuum; L6IH, Lockheed 6 wheel, internal, hydraulic.

O2IM, Own, 2 wheel, internal, mechanical; O2IV, Own, 2 wheel, internal, vacuum; O4IA, Own, 4 wheel, internal, air; O4IM, Own, 4 wheel, internal, mechanical; O4IV, Own, 4 wheel, internal, vacuum; O4M, Own, 4 wheel, mechanical; O2XM, Own, 2 wheel, external, mechanical; O4XM, Own, 4 wheel, external, mechanical; OJXM, Own, jack shaft, external, mechanical; OL4IH, Own, Lockheed, 4 wheel, internal, hydraulic; OPX, Own, propeller shaft, external; OPXM, Own, propeller shaft, external, mechanical; OPM, Own, propeller shaft, mechanical; ORIV, Own, rear wheels, internal, vacuum.

S4IM, Steeldraulic, 4 wheel, internal, mechanical.

T4rIA, Timken, operating on 4 rear wheels, internal, air; T4IA, Timken, 4 wheel, internal, air; T6IA, Timken, 6 wheel, internal, air; T2IMV, Timken, 2 wheel, internal, mechanical, vacuum.

W4I, Westinghouse, 4 wheel, internal; W4IA, Westinghouse, 4 wheel, internal, air. W6IA, Westinghouse 6 wheel, internal, air. 4IA, 4 wheel, internal, air; 4IH, 4 wheel, internal, hydraulic; 4M, 4 wheel, mechanical.

WHEEL BASES given are standard, but optional wheel bases are available in many cases.

***CHASSIS WEIGHT** according to Automotive Daily News formula, which is the chassis with gas, oil, water and spare tire, but without cab or other equipment.

TIRES—B, balloon; D, dual; S, solid; P, pneumatic.

SPECIAL NOTATIONS

AMERICAN-LA FRANCE

*Chief model also available as 2½-ton model, 34x7 tire, dual rear; weight, 6,400. Price, $3,900.

Balloon tires optional on Chief and Big Chief models.

AUTOCAR

*Engines in these models are located under the driver's seat.

BROCKWAY

*Six-wheelers

CHEVROLET

Utility model available on 131-inch wheel base with chassis weight of 2,780 pounds and equipped with dual rear wheels.

DAY ELDER

*Six-wheeler.

Additional standard wheel bases are available on different models as follows:

85	146, 168	240	284
110	168, 186	285	304
138	162, 187, 193	345	304
160	162, 180, 204	402	304

DODGE

*Models F40, F41, F61 and F62 can be had with double drop frame.

DIAMOND T

*Six-wheelers.

Additional standard wheel bases available as follows:

551	158	750	167, 192
504	166½	801	180½, 199¼
506	174	1200	174½, 180
603	157, 179	1600	174½, 180
606	177½	1601	184

F. W. D.

*Indicates six-wheel model.

The BTL and BT models are special line construction trucks in which complete provision for mounting AT and T earth boring machine, winch, body and other line construction accessories is included in the standard chassis.

Special power take-off transmission, which provides 3 power take-offs which may be operated in any transmission speed, optional on all models.

FEDERAL

*Six-wheelers.

*Also rated in pounds of total allowable weight as follows:—

D 2	8,500	T 10 D R	18,000
E 2	8,500	U 6	20,000
F 7	10,000	U 6 D R	20,000
A 6	13,500	A 6 S W	18,500
A 6 T	15,000	4 C 6 A	24,000
A 6 T W	15,000	4 C 6 A D R	24,000
D 2 S W	12,500	4 C 6 A B	24,000
E 2 S W	12,500	4 C 6 A B D R	24,000
D 2 D	12,500	X 8	30,000
E 2 D	12,500	X 8 D R	30,000
T 10 E	18,000	X 8 R	30,000
T 10 W	18,000	X 8 RDR	30,000

†Solid tires standard, no spare rim or tire.

GRAMM

Series	Straight Rating	Wheel Base	Pay Load Range
AX 4	8,000	157	1 to 1½ tons
AX 6	8,000	157	1 to 1½ tons
BX 4	10,000	157	1½ to 2 tons
BX 6	10,000	157	1½ to 2 tons
CX 4	12,000	157-180	2 to 3 tons
CX 6	12,000	157-180	2 to 3 tons
B	12,000	157-174	2¾ to 2½ tons
C	14,000	145-196	2 to 3 tons
D	17,000	145-196	2½ to 4 tons
E	20,000	145-196	3 to 4½ tons
EY			3 to 4 tons
GY			4 to 5 tons
GW	28,000	157-240	5 to 7½ tons
HY*			5 to 6½ tons

†Both the four and six cylinder are also offered in 157-inch wheel base at $1,145 and $1,345, respectively.

GENERAL MOTORS TRUCK

*Capacity indicated is the Straight Rating (combined weight of chassis, body, equipment and pay load) for which each chassis is designed and guaranteed to satisfactorily operate under average conditions. The size of the tires used does not affect this Straight Rating, but to secure maximum tire mileage it is suggested that the total gross weight be limited to a "recommended gross weight" for each tire equipment based on tire capacity. Prices cover base chassis and vary with wheel base and tire combinations. The number of wheel base lengths, tire types, range of "recommended gross weights" and resulting pay load range (assuming nominal body allowance) for each model follows:

Model	Wheel Bases	Tire Types	Range of "Rec. Gross Weights"	Pay Load Range
T-11	1	1	3800	½
T-15	3	10	4500- 6500	½-1½
T-18		..	7500- 8200	1½-2
T-19	3	..	6800-10000	1½-2½
T-25	3	17	6800- 9000	1½-2
T-26	4	..	8500-11000	2-3
T-30	3	15	10000-12500	2-3
T-31	4	..	11000-14000	2½-4
TX 186½	1	..	14000	
WX 185	1	..	14500	
T-42	4	12	12000-15000	2½-4
T-44	4	12	12000-16000	3-4½
T-45	4	..	13500-16000	3-4½
WX 215	1	..	17000	
T-51	4	..	16500-19000	4-5½
T-55	4	..	16500-19000	4-5½
T-60	4	18	18500-22000	5-6½
T-61	4	..	19500-22000	5-6½
T-82	4	12	19000-24000	5-7
T-83	4	..	20000-24000	5-7
T-85	3	..	25000-30000	6-8
T-90	3	7	22000-28000	5-7½
T-95	3	..	30000-40000	7-11
T-96	3	..	28000-34000	7-9

†Models T-90, T-95 and T-96 are six-wheelers, the latter having one driven and one trailing axle. Optional rear axle gear ratios available for all models, except Model T-18 Double reduction axles available for Models T-60, T-61, T-82 and T-83.

INDIANA

*Six-wheelers.

MACK

Other wheel bases furnished on all truck models.

On 6-wheel jobs 4 rear wheels driven by chains, foot brake on 4 rear wheels.

††Made also in tractor models.

PAIGE

*Price includes panel or screen body, as well as models TX and WX, are available for export only as coach chassis.

†Chassis weight given does not include gas, water, etc.

PIERCE-ARROW

*Optional final drive on Models PW, FX, FY and FZ.

REO

Models DF, FA, FE and FF are available with dual wheels at additional cost.

*Model DF X can be had with 3 speed transmission and single tires for $895.

SELDEN

Additional standard wheel bases are available on different models as follows:

Model 37C	162 and 181
39C	177 and 190¼
47CB, 47CD	151, 164 and 184
67C	151, 164, 184 and 198

STEWART

Models 30 and 30X can also be supplied in 110, 120, 140 and 160-inch wheel base.

Models 40 and 40X can also be supplied in 110, 140 and 160-inch wheel base.

*Models 34X can be supplied in 135, 145, 160 and 176-inch

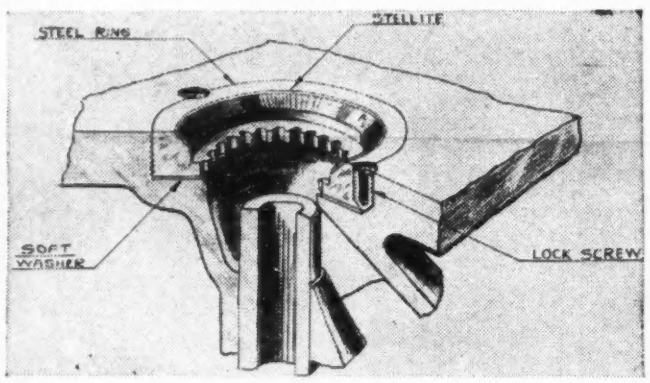
White Adopts Use of New Hard Alloy Exhaust Valve Seat on All Its '6' Engines

THE application of the new hard alloy exhaust valve seat, as developed by the White Company engineers, is now in use in exhaust valve ports on all six-cylinder White engines.

A few years ago, when automobiles were still very much in the development stage, there was fairly frequent difficulty with exhaust valves burning or pitting, the reason being that modern alloy steels were not used for valve heads and the extreme heat to which the exhaust valve head was subjected was so great that actual burning of the valve often occurred.

Valve manufacturers made rapid progress in developing special steels so that the valve heads resisted this burning very effectively. All modern engines use some alloy steel of this character. Engines subjected to especially heavy service may use a salt cooled valve stem, as well as alloy steel material, as in the case of the exhaust valve in the White 1-A and 5-A engines. These developments have met the requirements of the more severe service in modern engines, so far as valves are concerned, but until just recently there has been little or no change in the material of the valve seats.

The White Company has developed the application of a material



for valve seats which takes care of all requirements for a suitable valve seat—namely, resistance to high temperatures and the retaining of hardness at these high temperatures, are also desirable properties for high speed cutting tools. Various materials have been developed for such cutting tools. One of these materials—a compound of chromium and cobalt, called Stellite—was found to be suited to the requirements of a valve seat.

But the selection of this material which has proven its desirable properties was only the first step in the development of an adequate valve seat. It was found that considerable development of technique was necessary in order to secure the proper application of this material. Stellite itself is so hard that it is exceedingly difficult to machine and manufacture to the precision limits required in these parts. It was impractical to attempt to weld it directly into the block or head and it is so hard that it would also be impractical to attempt to machine the seats directly out of such stock.

These factors brought about the development of a type of construction whereby a machine steel ring is made which can be screwed and locked into the block or head. This steel ring serves as the carrier for the valve seat material in much the same way that the high speed tool serves as the base on which the cutting tip is welded. This ring is beveled, and the Stellite is welded onto this beveled face of the steel ring.

After welding, the welded seat is rough ground to its finished form and the steel ring is threaded on the outside and serrated on the inside so that it can be screwed and locked in place in the block or head. The threads are painted with a solution that assists in a bonding process which aids in locking the valve seat into the block and also assists in the heat transfer from the valve seat to the water in the jackets of the engine.

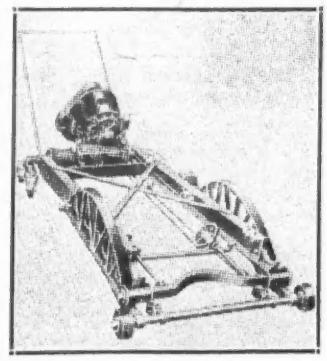
Small dowels are also screwed into place between the valve seat and the valve or head to make certain that the seat cannot loosen up in service. A thin, soft iron washer is placed between the valve seat insert and the bottom of the recess in the block or head to provide a more substantial seating of the insert and aid in the heat transfer.

The valve seat is not finish-ground until all the above has been accomplished and the valve seat is definitely locked in the block or head. This is necessary so that the valve seat will be lined up properly and exactly concentric with the valve stem guide. The valve seat is finished with a special high-speed grinding wheel. The tool which uses this grinding wheel is so arranged that the valve seat must be concentric with the hole in the valve stem guide. This is a precision tool, and when this grinding is completed no further touch-up or fitting is necessary to insure a proper fit between the valve and its seat.

The total clearance allowed for the valve stem guide is only seven one-thousandths of an inch. This clearance is largely used up by expansion due to heat and leaves a very small allowance for variation in size. The valve seat, however, is held to still closer limits, the average tolerance being from seven to thirteen ten-thousandths of an inch. The result is that there is no need for a final grinding-in of the valves. Both the valve and the seat are accurately manufactured within precision limits, and final assembly does not require any further fitting.

It would be unfair to pass by the description of the manufacturing process without pointing out the high degree of mechanical skill or technique which has been developed in working out this problem. All welding is somewhat of an art, especially when dealing with metals and types of service such as this. It is believed that the technique developed for building up these exhaust valve seats represents the highest development of the welding art used in any commercial process. The welding apparatus, the jigs and fixtures, the electrically driven welding table which helps to insure uniform welding speed, the core plugs for controlling the heat, etc., are each the result of considerable experience in the development of the process and are essential to its success.

NEW BEE-LINE SUPER LIFT IS ANNOUNCED BY GEO. L. HUNT CO.



A new super lift is designed by the George L. Hunt Automotive Equipment Company of Davenport, Ia., to give all the advantages of the best jack and lift equipment, plus the obvious advantage of extreme portability, making it ideal for the shop with limited space. Combining several pieces of equipment in one, it has tremendous appeal from the standpoint of economy to shop men desiring the advantage of greasing, car washing, motor service, etc., without going into the purchase of expensive equipment.

The super lift is motor driven and has a full rise of 5 feet 1 inch, the low point being five inches. The lift can be placed at any desired height by simply using the control switch. Wheels or tires can be removed at any preferred height. The entire chassis is accessible.

All movable parts use ball or roller bearings. Worm gear drive, automatic start and stop switch, safety clutch to hold car securely in place are notable features of this new lift.

The half-horse-power motor is totally inclosed, making the lift practical for the car washing station. It can be used indoors or out, and is not affected by the elements. Rated at 6,000 pounds car capacity, each lift is given a safety test of 12,000 pounds before leaving the factory.

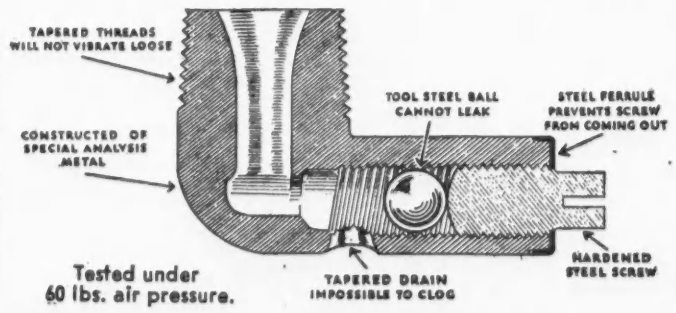
Extra trestles can be furnished by the manufacturer, making it possible to raise the complete car from the ground. These trestles can be used for other service work as well.

METROPOLITAN A. S. M. E. AIR SESSION NOV. 19

New York, Nov. 12.—The Metropolitan Section, American Society of Mechanical Engineers, will hold its aviation transportation meeting November 19 in the Engineering Society's Building. Thomas Morgan, president of the Curtiss-Wright Corporation, will preside.

Addresses will include "Air Transport Ignores Depression," by Carl B. Fritsche, Aircraft Development Corporation, Detroit; "Interesting Trends in Airports," by E. K. Harvey, New York; "Automatic Piloting of Airplanes," by Elmer A. Sperry, Jr., vice-president Sperry Products Company; "Aviation Experiences at the South Pole," by Lieut. Bernt Balchen, in charge of aviation of the Byrd antarctic expedition.

M. & S. CRANK CASE OIL DRAINER IS NEW LINE


TAPERED THREADS WILL NOT VIBRATE LOOSE
CONSTRUCTED OF SPECIAL ANALYSIS METAL
TOOL STEEL BALL CANNOT LEAK
STEEL FERRULE PREVENTS SCREW FROM COMING OUT
HARDENED STEEL SCREW
TAPERED DRAIN IMPOSSIBLE TO CLOG
Tested under 60 lbs. air pressure.

The Martin & Stoner Company of Chicago is announcing a new crank case oil drainer, which is designed to replace the regular crank case drain plug. The M. & S. drainer is for the purpose of permitting the motorist or the service station attendant to release the crank case oil from the side of the car by means of a 26 inch folding handle, which is provided with each drainer. This eliminates the need for placing the car on a pit or having the mechanic crawl under the vehicle.

Sell Every Day

M. E. A. - N. S. P. A. Joint Show Atlantic City Dec. 7-12 Inclusive

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3 QUICK SERVICE

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Automotive Daily News

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